

Priority

Access DB# 171712

# SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Sin J. Lee Examiner #: 76060 Date: 11-15-05  
Art Unit: 1752 Phone Number 302-1333 Serial Number: 10/809,323  
Mail Box and Bldg/Room Location: 9D60 Results Format Preferred (circle): PAPER DISK E-MAIL  
(Rem.)

If more than one search is submitted, please prioritize searches in order of need.  
\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Plz. See B1b

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Plz. search for a composition  
that contains ① an Infrared absorber (A) of  
formula (1) in Cl. # 2  
② Radical generator (or photoinitiator) ~~or~~ (compound that generates a radical upon heating or irradiating)  
③ a polymerizable compound.

SCIENTIFIC REFERENCE BR  
Sci & Tech Inf. Cntr

NOV 16 RECD

Pat. & T.M. Office

\*\*\*\*\*

## STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>Wether</u>	NA Sequence (#) _____	STN <u>8675.81</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>1</u>	Questel/Orbit _____
Date Searcher Picked Up: <u>11/16/05</u>	Bibliographic _____	Dr.Link _____
Date Completed: <u>11/17/05</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>120</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: <u>30</u>	Patent Family _____	WWW/Internet _____
Online Time: <u>120</u>	Other _____	Other (specify) _____

IN THE CLAIMS:

1. (Currently Amended) A presensitized plate ~~composed~~ comprised of a support having thereon an image recording layer which includes:

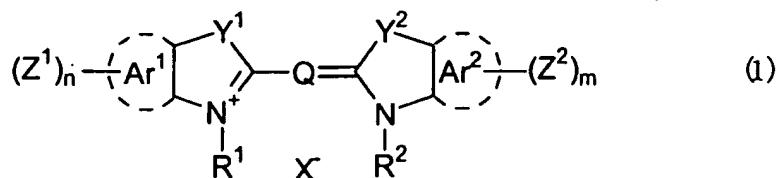
an infrared absorber (A) that is a cyanine dye having at least one fused ring ~~composed~~ comprised of a nitrogen-containing heterocycle in combination with an aromatic ring or a second heterocycle, and having on the aromatic ring or second heterocycle an electron-withdrawing group or a heavy atom-containing group,

a radical generator (B), and

a radical-polymerizable compound (C),

and which is removable with printing ink and/or dampening water.

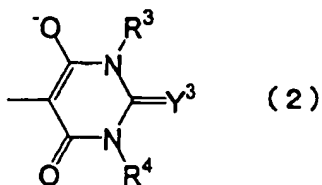
2. (Currently Amended) The presensitized plate according to claim 1, wherein the infrared absorber (A) is a compound of formula (1) below  $[[.]]$  :



~~in~~ wherein in the formula (1),  $R^1$  and  $R^2$  are each

independently a hydrocarbon group of up to 20 carbons which may be substituted  $[[.]]_n$ ,  $Ar^1$  and  $Ar^2$  are each independently an aromatic hydrocarbon group or a heterocyclic group which may be substituted  $[[.]]_n$ ,  $Y^1$  and  $Y^2$  are each independently a sulfur atom, an oxygen atom, a selenium atom, a dialkylmethylene group of up to 12 carbons or a  $-CH=CH-$  group  $[[.]]_n$ ,  $Z^1$  and  $Z^2$  are each substituents selected from the group consisting of hydrocarbon groups, oxy groups, electron-withdrawing groups and heavy atom-containing groups, at least one of  $Z^1$  and  $Z^2$  being an electron-withdrawing group or a heavy atom-containing group ~~—The~~  $[[.]]_n$  wherein the letters n and m each represent 0 or a higher integer, with the proviso that the sum of n and m is at least 1  $[[.]]_n$

Q is a pentamethine group or a heptamethine group which may be substituted with a member selected from the group consisting of alkoxy, aryloxy, alkylthio, arylthio, dialkylamino, diarylamino, halogen atoms, alkyl, aralkyl, cycloalkyl, aryl, oxy, iminium bases and substituents of formula (2) below; or may have a cyclohexene, cyclopentene or cyclobutene ring containing three connected methine chains  $[[.]]_n$



~~In~~ wherein in the formula (2),  $R^3$  and  $R^4$  are each independently

a hydrogen atom, an alkyl of 1 to 8 carbons or an aryl of 6 to 10 carbons; and  $Y^3$  is an oxygen atom or a sulfur atom  $[[.]]$ , and

$X^-$  is a counteranion that exists in cases where charge neutralization is required.  $[[ ]]$

3. (Cancelled)

4. (Original) The presensitized plate according to claim 1, wherein the support has thereon, in order, an undercoat layer containing a compound having a polymerizable group on the molecule, and the image recording layer.

5. (Currently Amended) ~~The presensitized plate according to claim 3,~~ A presensitized plate comprised of a support having thereon an image recording layer which includes:

an infrared absorber (A) having an oxidation potential of at most 0.45 V (vs. SCE),

a radical generator (B), and

a radical-polymerizable compound (C),

and which is removable with printing ink and/or dampening water, wherein the support has thereon, in order, an undercoat layer containing a compound having a polymerizable group on the molecule, and the image recording layer.

6. (Original) The presensitized plate according to claim 4, wherein the compound having a polymerizable group on the

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## Bib Data Sheet

**CONFIRMATION NO. 1240**

SERIAL NUMBER 10/809,323	FILING DATE 03/26/2004  RULE	CLASS 430	GROUP ART UNIT 1752	ATTORNEY DOCKET NO. 1110-0318P					
<b>APPLICANTS</b>  Tomoyoshi Mitsumoto, Shizuoka, JAPAN;  Ippei Nakamura, Shizuoka, JAPAN;									
<b>** CONTINUING DATA *****</b> <div style="text-align: center; margin-left: 100px;">None SJL</div>									
<b>** FOREIGN APPLICATIONS *****</b> JAPAN 2003-085166 03/26/2003 JAPAN 2003-327659 09/19/2003 JAPAN 2003-341197 09/30/2003 <div style="text-align: right; margin-right: 50px;">SJL</div>									
<b>IF REQUIRED, FOREIGN FILING LICENSE GRANTED</b> <b>** 06/08/2004</b>									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%; padding: 5px;">           Foreign Priority claimed  <input checked="" type="checkbox"/> yes <input type="checkbox"/> no            35 USC 119 (a-d) conditions met  <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance            Verified and Acknowledged  <div style="display: flex; justify-content: space-between;"> <div style="border-top: 1px solid black; width: 150px;">Examiner's Signature</div> <div style="border-top: 1px solid black; width: 100px;">Initials</div> </div> </td> <td style="width: 15%; text-align: center; padding: 5px;">           STATE OR COUNTRY JAPAN         </td> <td style="width: 15%; text-align: center; padding: 5px;">           SHEETS DRAWING 0         </td> <td style="width: 15%; text-align: center; padding: 5px;">           TOTAL CLAIMS 17         </td> <td style="width: 15%; text-align: center; padding: 5px;">           INDEPENDENT CLAIMS 2         </td> </tr> </table>					Foreign Priority claimed <input checked="" type="checkbox"/> yes <input type="checkbox"/> no 35 USC 119 (a-d) conditions met <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance Verified and Acknowledged <div style="display: flex; justify-content: space-between;"> <div style="border-top: 1px solid black; width: 150px;">Examiner's Signature</div> <div style="border-top: 1px solid black; width: 100px;">Initials</div> </div>	STATE OR COUNTRY JAPAN	SHEETS DRAWING 0	TOTAL CLAIMS 17	INDEPENDENT CLAIMS 2
Foreign Priority claimed <input checked="" type="checkbox"/> yes <input type="checkbox"/> no 35 USC 119 (a-d) conditions met <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance Verified and Acknowledged <div style="display: flex; justify-content: space-between;"> <div style="border-top: 1px solid black; width: 150px;">Examiner's Signature</div> <div style="border-top: 1px solid black; width: 100px;">Initials</div> </div>	STATE OR COUNTRY JAPAN	SHEETS DRAWING 0	TOTAL CLAIMS 17	INDEPENDENT CLAIMS 2					
<b>ADDRESS</b> 02292 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH , VA 22040-0747									
<b>TITLE</b> Lithographic printing method and presensitized plate									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; padding: 5px;"> <b>FILING FEE</b> </td> <td style="width: 55%; padding: 5px;"> <b>FEES:</b> Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT         </td> <td style="width: 30%; padding: 5px;"> <input type="checkbox"/> All Fees  <input type="checkbox"/> 1.16 Fees ( Filing )  <input type="checkbox"/> 1.17 Fees ( Processing Ext. of time )         </td> </tr> </table>					<b>FILING FEE</b>	<b>FEES:</b> Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT	<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees ( Filing ) <input type="checkbox"/> 1.17 Fees ( Processing Ext. of time )		
<b>FILING FEE</b>	<b>FEES:</b> Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT	<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees ( Filing ) <input type="checkbox"/> 1.17 Fees ( Processing Ext. of time )							

=> fil reg

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=> d his ful

FILE 'HCAPLUS' ENTERED AT 12:19:16 ON 17 NOV 2005

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L2 113 SEA ABB=ON PLU=ON MITSUMOTO T?/AU  
L3 1933 SEA ABB=ON PLU=ON NAKAMURA I?/AU  
L4 2 SEA ABB=ON PLU=ON L2 AND L3  
D SCAN

FILE 'REGISTRY' ENTERED AT 12:55:45 ON 17 NOV 2005

L5 12 SEA ABB=ON PLU=ON (134127-48-3/BI OR 123-28-4/BI OR  
124996-93-6/BI OR 16545-54-3/BI OR 27029-76-1/BI OR  
42232-29-1/BI OR 449762-40-7/BI OR 5303-25-3/BI OR  
56992-87-1/BI OR 63-74-1/BI OR 693-36-7/BI OR 79-41-4/B  
I)  
D SCAN

FILE 'LREGISTRY' ENTERED AT 13:35:39 ON 17 NOV 2005

L6 STR

FILE 'REGISTRY' ENTERED AT 13:40:40 ON 17 NOV 2005

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L8 SCR 1607  
L9 9 SEA SSS SAM L6 AND L8  
L10 SCR 1841  
L11 13 SEA SSS SAM L6 AND L8 AND L10  
L12 SCR 1918  
L13 13 SEA SSS SAM L6 AND L8 AND L10 NOT L12  
L14 SCR 2043  
L15 16 SEA SSS SAM L6 AND L8 AND L10 NOT (L12 OR L14)  
D QUE STAT L15  
L16 SCR 1993  
L17 14 SEA SSS SAM L6 AND L8 AND L10 AND L16 NOT (L12 OR L14)  
DIS SIA L6  
L18 STR L6  
L19 13 SEA SSS SAM L18 AND L8 AND L10 AND L16 NOT (L12 OR  
L14)  
L20 SCR 2040  
L21 50 SEA SSS SAM L18 AND L8 AND L10 AND L16 AND L20 NOT  
(L12 OR L14)  
D QUE STAT L21  
L22 STR L18  
L23 2 SEA SSS SAM L22  
L24 50 SEA SSS SAM L22 AND L8 AND L10 AND L16 AND L20 NOT L14  
D QUE STAT L24  
L25 22781 SEA SSS FUL L22 AND L8 AND L10 AND L16 AND L20 NOT L14  
SAV L25 LEE323/A

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D ALL

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L28 216 SEA ABB=ON PLU=ON L27 AND (RADICAL(2A) (POLYMERI? OR  
GENERAT?) OR PHOTOINITIAT?)

L29 105 SEA ABB=ON PLU=ON L28 AND COMPOSITION?  
 L30 35 SEA ABB=ON PLU=ON L29 AND LITHOG?  
 D HITSTR  
 L31 56 SEA ABB=ON PLU=ON L27 (L) (RADICAL (2A) GENERAT? OR  
 PHOTOINITIAT? OR (HEAT OR THERM?) (2A) INITIAT?)  
 L32 45 SEA ABB=ON PLU=ON L31 AND (POLYMERI? OR RADICAL (2A) PO  
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 L33 8 SEA ABB=ON PLU=ON L32 AND LITHOG?  
 L34 37 SEA ABB=ON PLU=ON L30 OR L33  
 L35 33 SEA ABB=ON PLU=ON L32 AND PHOTOG?/SC, SX  
 L36 62 SEA ABB=ON PLU=ON L34 OR L35

=> d que 136

L8 SCR 1607  
 L10 SCR 1841  
 L14 SCR 2043  
 L16 SCR 1993  
 L20 SCR 2040  
 L22 STR

Hy<sup>^</sup>G1<sup>~</sup>G2<sup>~</sup>G1<sup>^</sup>Hy Ak @9  
 1 2 8 6 7

REP G1=(1-2) C

VAR G2=9/CB

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS PCY UNS AT 1

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ECOUNT IS M1-X2 N M0-X1 O M0-X1 S M0-X1 Se AT 7

ECOUNT IS E3 C AT 9

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

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 AND L20 NOT L14  
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 L30 35 SEA FILE=HCAPLUS ABB=ON PLU=ON L29 AND LITHOG?  
 L31 56 SEA FILE=HCAPLUS ABB=ON PLU=ON L27 (L) (RADICAL (2A) GENE  
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 RADICAL (2A) POLYMERI?)  
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 L34 37 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 OR L33  
 L35 33 SEA FILE=HCAPLUS ABB=ON PLU=ON L32 AND PHOTOG?/SC, SX  
 L36 62 SEA FILE=HCAPLUS ABB=ON PLU=ON L34 OR L35

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L36 ANSWER 1 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2005:1074618 HCAPLUS  
DOCUMENT NUMBER: 143:336299  
TITLE: Negatively working polymerizable  
**composition** and image-recording  
material using it  
INVENTOR(S): Taguchi, Takanori; Fujimaki, Kazuhiro  
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 97 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005274626	A2	20051006	JP 2004-83696	2004 0322
PRIORITY APPLN. INFO.:			JP 2004-83696	2004 0322

AB The **composition** contains (A)  $\geq 1$  compound having  
 $\geq 1$  partial structure represented by (I) R1R2C:CR3(COX-) and  
 $\geq 1$  partial structure represented by (II) R4R5C:CR6(A-)  
[R1-6 = 1-valent substitute composed of H and nonmetal atom; X =  
O, NR7 (R7 = 1-valent substitute composed of H and nonmetal atom);  
A = aromatic group, heterocyclic ring], (B) **radical**  
**polymerization** initiator, and (C) IR ray absorber. The claimed  
recording material has a recording layer containing the **compon**  
. The **composition** has high sensitivity and storage  
stability, and the recording material has high printability. The  
**composition** is especially useful for lithog. printing  
plates.

IT 110992-87-5 835902-38-0  
(IR absorber; neg. working polymerizable **composition** with  
high sensitivity and storage stability for image-recording  
material with high printability)

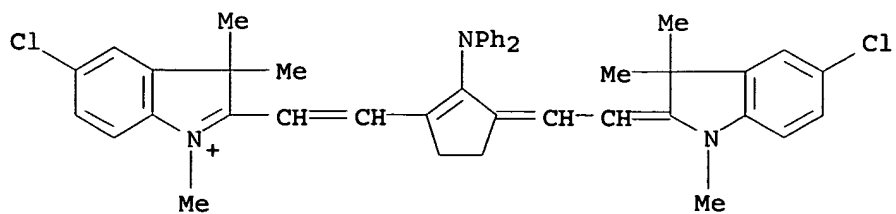
RN 110992-87-5 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-  
trimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-  
cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-)  
(9CI) (CA INDEX NAME)

CM 1

CRN 110992-86-4

CMF C43 H42 Cl2 N3

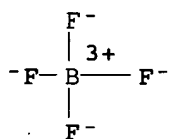


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



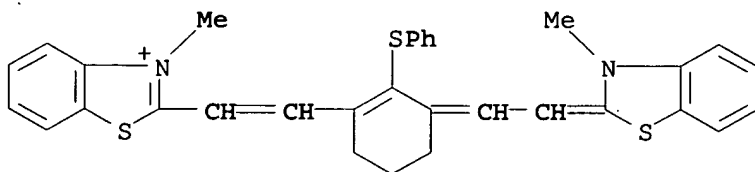
RN 835902-38-0 HCAPLUS

CN Benzothiazolium, 3-methyl-2-[2-[3-[(3-methyl-2(3H)-benzothiazolylidene)ethylidene]-2-(phenylthio)-1-cyclohexen-1-yl]ethenyl]-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 835902-37-9

CMF C32 H29 N2 S3

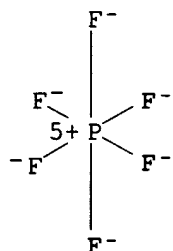


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



IC ICM G03F007-027  
 ICS C08F220-10; G02B005-20; G03F007-004; G03H001-02  
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and  
 Other Reprographic Processes)  
 ST neg polymerizable **compn** image recording material;  
 lithog printing plate neg polymerizable **compn**  
 IT **Lithographic** plates  
 Photoimaging materials  
 Recording materials  
 (neg. working polymerizable **composition** with high  
 sensitivity and storage stability for image-recording material  
 with high printability)  
 IT 110992-87-5 303988-48-9 835902-38-0  
 (IR absorber; neg. working polymerizable **composition** with  
 high sensitivity and storage stability for image-recording  
 material with high printability)  
 IT 120307-06-4 253585-83-0 676349-80-7 745817-76-9  
 847565-03-1  
 (neg. working polymerizable **composition** with high  
 sensitivity and storage stability for image-recording material  
 with high printability)  
 IT 1985-51-9 13048-33-4 40220-08-4 55008-64-5 55008-80-5  
 64401-02-1 151745-21-0  
 (neg. working polymerizable **composition** with high  
 sensitivity and storage stability for image-recording material  
 with high printability)

L36 ANSWER 2 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:1023825 HCAPLUS

DOCUMENT NUMBER: 143:315482

TITLE: Negantive-working photosensitive  
**compositions** for manufacturing  
 presensitized lithographic printing  
 plates

INVENTOR(S): Hiramoto, Ryuichi; Ozaki, Atsushi

PATENT ASSIGNEE(S): Okamoto Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2005257828

A2

20050922

JP 2004-66596

2004

0310

PRIORITY APPLN. INFO.:

JP 2004-66596

2004

0310

AB The **compns.** contain alkali-soluble polymers, diazonium resins, ethylenic monomers, IR absorbents, organic borate salts, and optionally imidazole compds. Also claimed are presensitized **lithog.** printing plates comprising photoimaging layers made from the **compns.** The photoimaging layers, for IR laser platemaking, show high photosensitivity, high adhesion with supports, high scratching resistance, and provide high printing wear.

IT 110992-66-0

(IR absorbents; in neg.-working photosensitive **compns** for manufacturing presensitized **lithog.** printing plates)

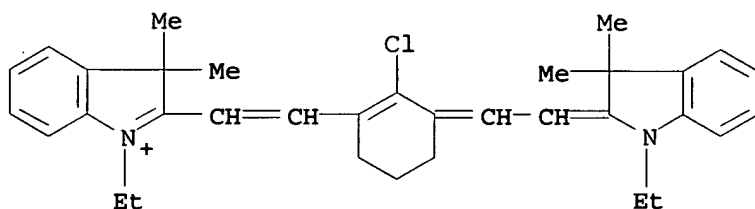
RN 110992-66-0 HCAPLUS

CN 3H-Indolium, 2-[2-[2-chloro-3-[(1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-ethyl-3,3-dimethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 110992-65-9

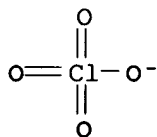
CMF C34 H40 Cl N2



CM 2

CRN 14797-73-0

CMF Cl O4



IC ICM G03F007-00

ICS C08F002-50; G03F007-004; G03F007-029

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 38

ST **lithog** printing plate neg photosensitive polymer  
**compn**; IR laser platemaking **lithog** plate neg

- photosensitive polymer
- IT Polyurethanes, preparation  
(acrylic-polyester-polyoxyalkylene-, in photoimaged layer;  
neg.-working photosensitive **compns.** for manufacturing  
presensitized **lithog.** printing plates)
- IT Polyoxyalkylenes, preparation  
(acrylic-polyester-polyurethane-, in photoimaged layer;  
neg.-working photosensitive **compns.** for manufacturing  
presensitized **lithog.** printing plates)
- IT Polyesters, preparation  
(acrylic-polyoxyalkylene-polyurethane-, in photoimaged layer;  
neg.-working photosensitive **compns.** for manufacturing  
presensitized **lithog.** printing plates)
- IT Photoimaging materials  
(photopolymerizable, neg.-working; neg.-working photosensitive  
**compns.** for manufacturing presensitized **lithog.**  
printing plates)
- IT Polyurethanes, preparation  
(polyester-polyoxyalkylene-, block, methacrylate-containing; in  
neg.-working photosensitive **compns.** for manufacturing  
presensitized **lithog.** printing plates)
- IT **Lithographic** plates  
(presensitized; neg.-working photosensitive **compns.**  
for manufacturing presensitized **lithog.** printing plates)
- IT 110992-66-0  
(IR absorbents; in neg.-working photosensitive **compns.**  
for manufacturing presensitized **lithog.** printing plates)
- IT 864498-56-6P  
(alkali-soluble; in neg.-working photosensitive **compns.**  
for manufacturing presensitized **lithog.** printing plates)
- IT 252255-01-9P  
(in neg.-working photosensitive **compns.** for manufacturing  
presensitized **lithog.** printing plates)
- IT 4065-45-6D, 2-Methoxy-4-hydroxy-5-benzoylbenzenesulfonic acid,  
reaction products with 4-diazodiphenylamine-formaldehyde copolymer  
4986-89-4, Pentaerythritol tetraacrylate 27176-87-0D,  
Dodecylbenzenesulfonic acid, reaction products with  
4-diazodiphenylamine-formaldehyde copolymer 29570-58-9,  
Dipentaerythritol hexaacrylate 30939-08-3D, reaction products  
with benzenesulfonic acid derivs.  
(in neg.-working photosensitive **compns.** for manufacturing  
presensitized **lithog.** printing plates)
- IT 57592-66-2P, Pentaerythritol tetraacrylate homopolymer  
67653-78-5P, Dipentaerythritol hexaacrylate homopolymer  
(in photoimaged layer; neg.-working photosensitive  
**compns.** for manufacturing presensitized **lithog.**  
printing plates)
- IT 1707-68-2 120307-06-4, Tetrabutylammonium n-butyltriphenylborate  
864764-76-1  
(radical generators; in neg.-working  
photosensitive **compns.** for manufacturing presensitized  
**lithog.** printing plates)

L36 ANSWER 3 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:1004242 HCAPLUS

DOCUMENT NUMBER: 143:315470

TITLE: Curable **composition** and image  
forming material containing the same

INVENTOR(S): Fujimaki, Kazuhiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: U.S. Pat. Appl. Publ., 54 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005202343	A1	20050915	US 2005-75768	2005 0310
JP 2005258319	A2	<del>20050922</del>	JP 2004-73071	2004 0315
EP 1577113	A2	<del>20050921</del>	EP 2005-5365	2005 0311

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,  
 MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ,  
 EE, HU, PL, SK, BA, HR, IS, YU

PRIORITY APPLN. INFO.: JP 2004-73071 A  
 2004  
 0315

AB A curable composition for lithog. printing plate comprising: (A) an IR absorber which is a cyanine dye having a structure in which hetero rings are bonded to each other via a methine chain and which has at least one substituent having a structure selected from the group consisting of an amide bond, a urethane bond, a urea bond and a sulfonamide bond on at least one of aromatic rings at both ends, nitrogen atoms present on the hetero rings at both ends and the methine chain; (B) at least one of a radical generator and an acid generator; and (C) at least one of a radical polymerizable compound and an acid crosslinking agent.

IT 864660-52-6 864660-54-8 864660-56-0  
 864660-58-2 864660-60-6 864660-62-8  
 864660-63-9 864660-64-0 864660-66-2  
 864660-68-4 864660-70-8 864660-72-0  
 864660-74-2 864660-76-4 864660-78-6  
 864660-80-0 864660-82-2 864660-84-4  
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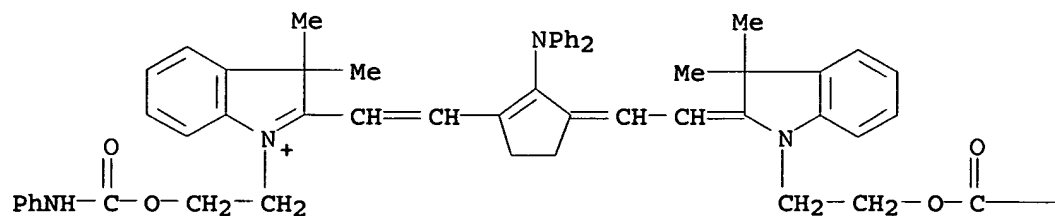
(cyanine dye; lithog. printing plate curable composition and image forming material containing)

RN 864660-52-6 HCAPLUS  
 CN INDEX NAME NOT YET ASSIGNED

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CRN 864660-51-5  
 CMF C59 H58 N5 O4

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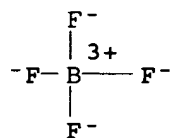
— NHPh

CM 2

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CMF B F4

CCI CCS



RN 864660-54-8 HCAPLUS

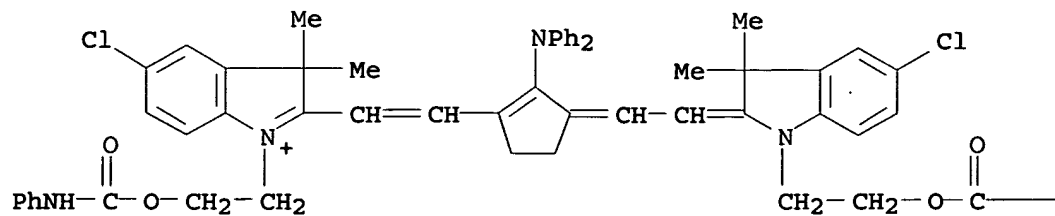
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PAGE 1-A



PAGE 1-B

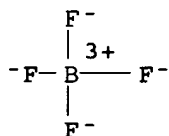
—NHPh

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CMF B F4

CCI CCS



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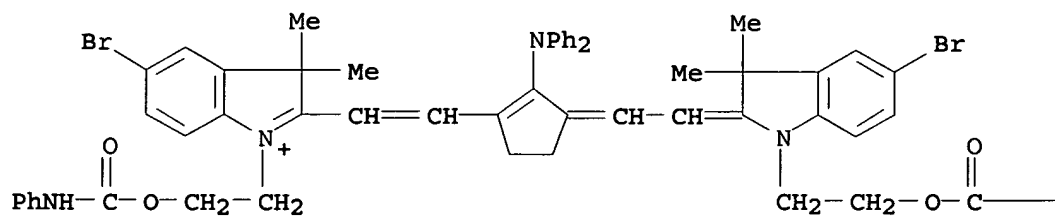
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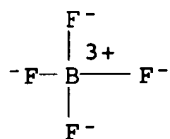


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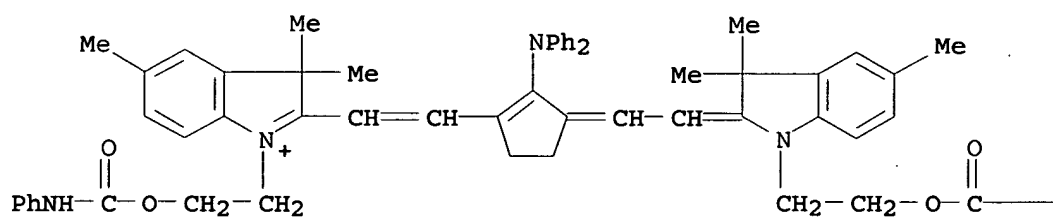


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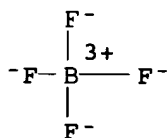


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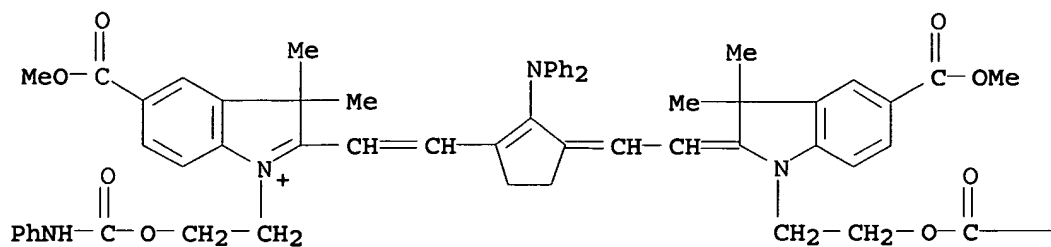


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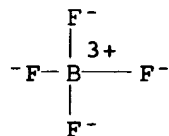


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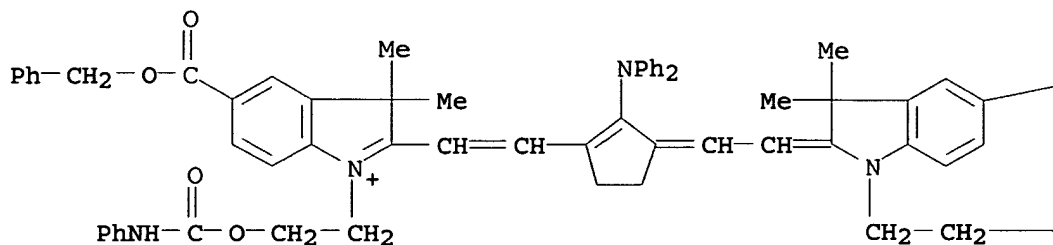


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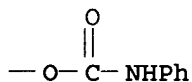
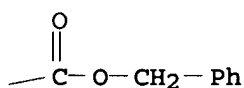
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PAGE 1-A



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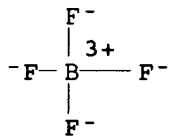


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CMF B F4

CCI CCS



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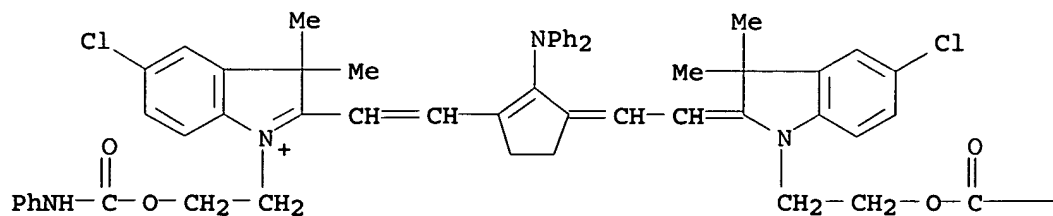
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CRN 864660-53-7

CMF C59 H56 Cl2 N5 O4

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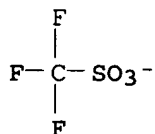
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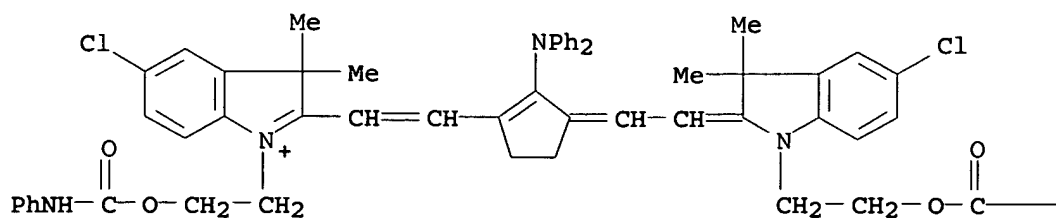
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PAGE 1-A



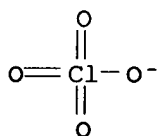
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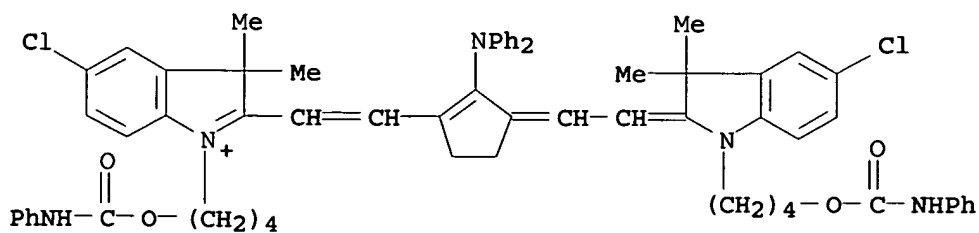
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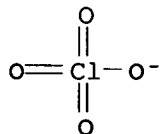
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CM 2

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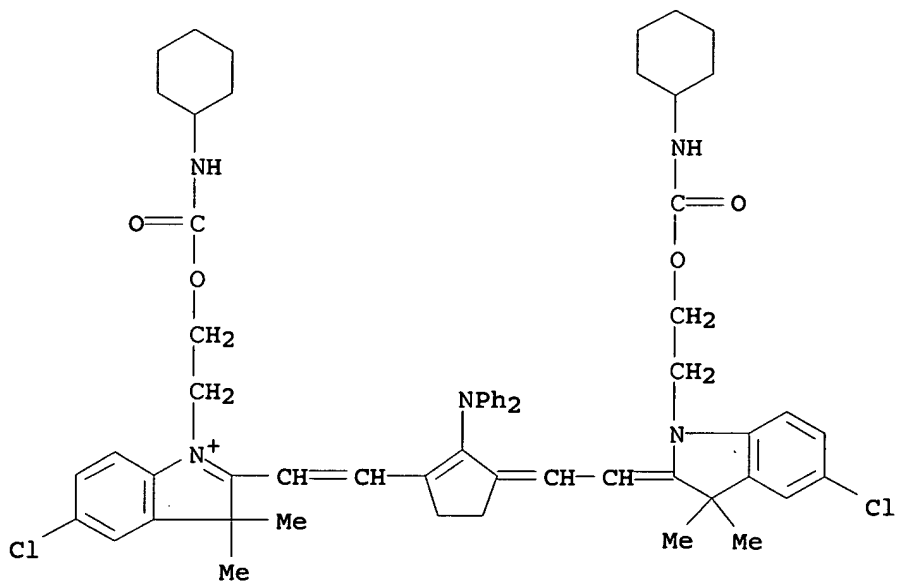
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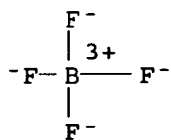


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CMF B F4

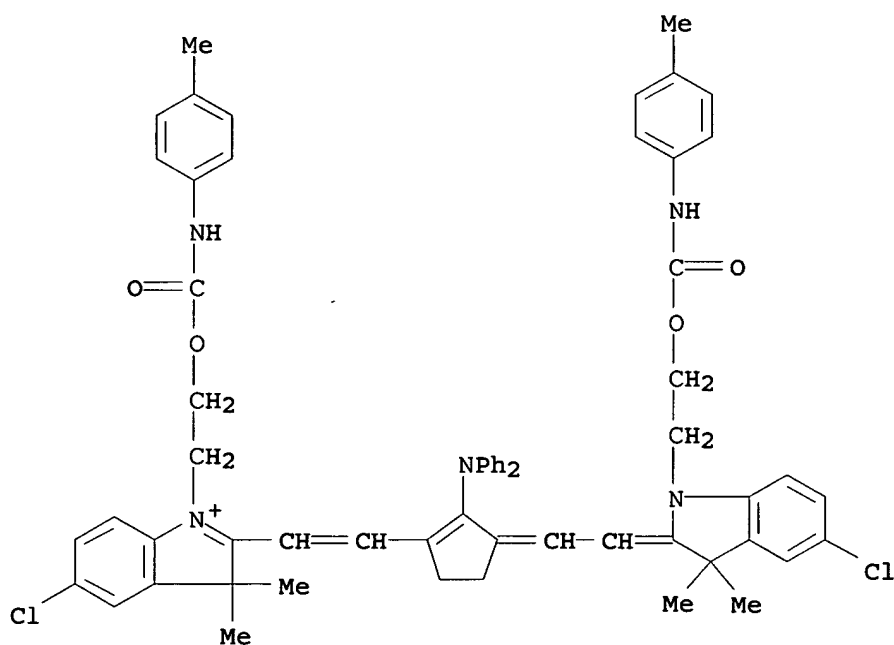
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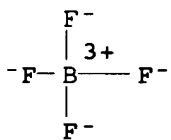
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CM 2

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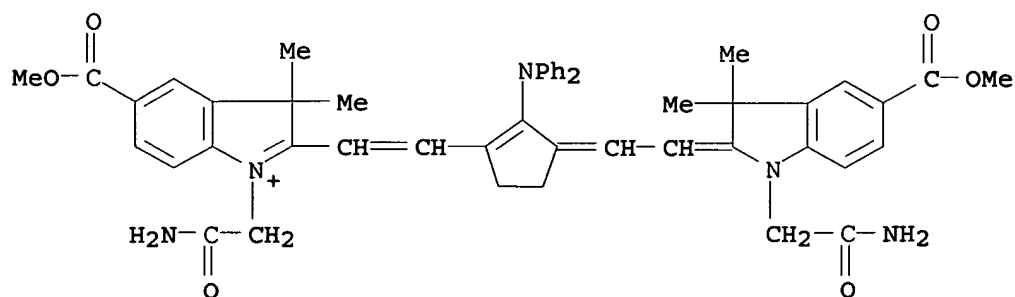
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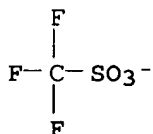
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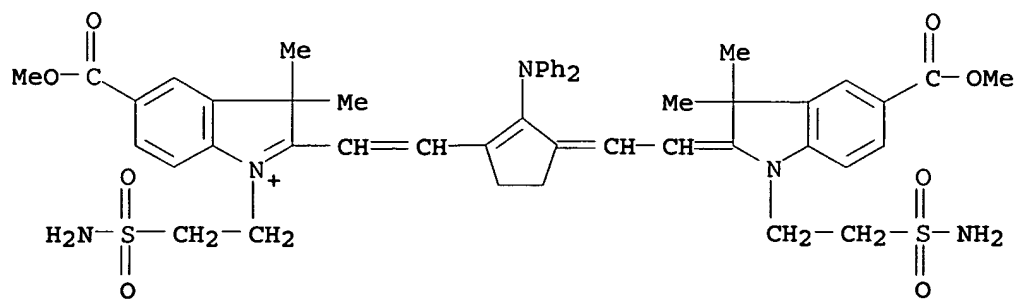
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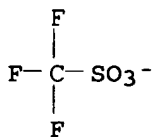
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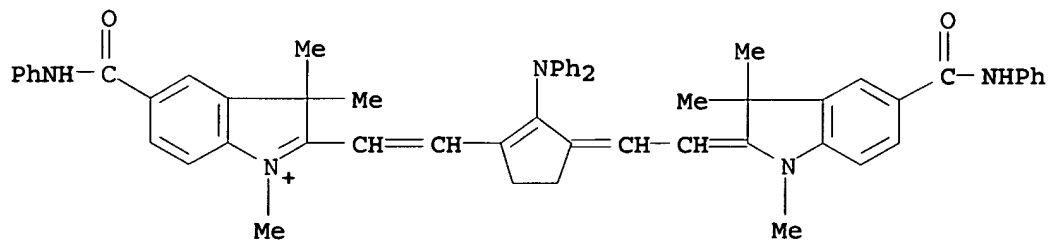


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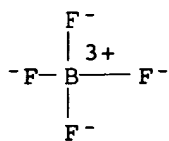


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CMF B F4

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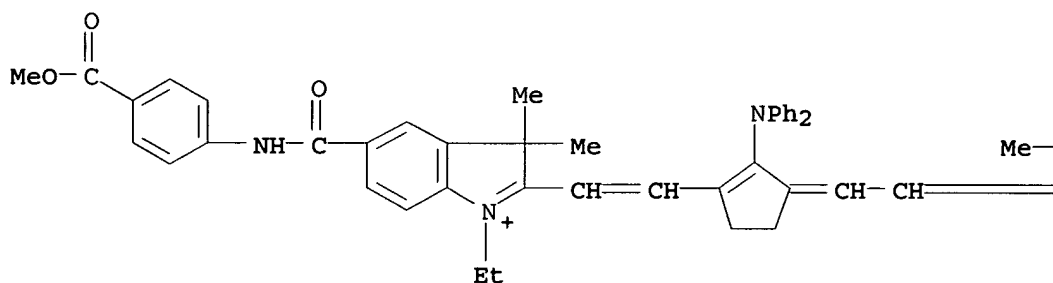


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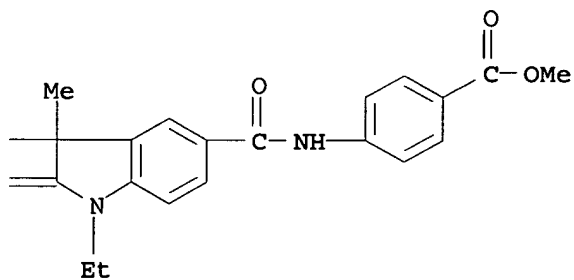
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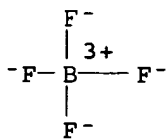


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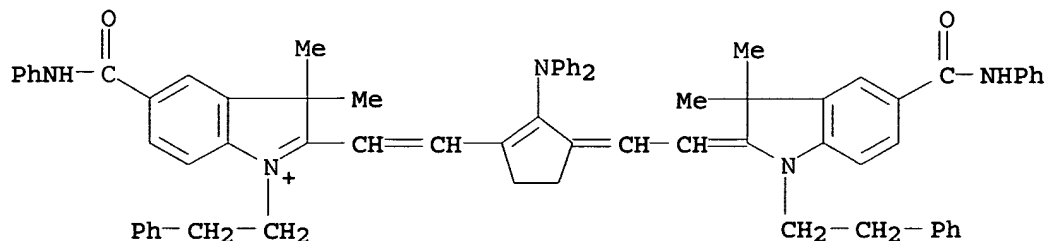
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 with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

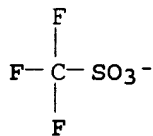
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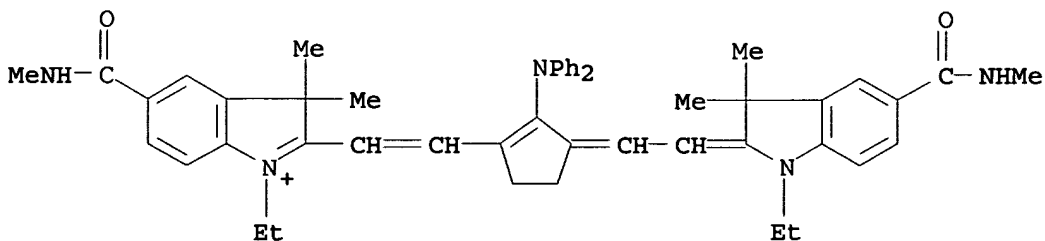
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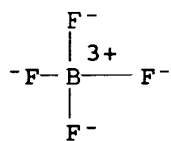


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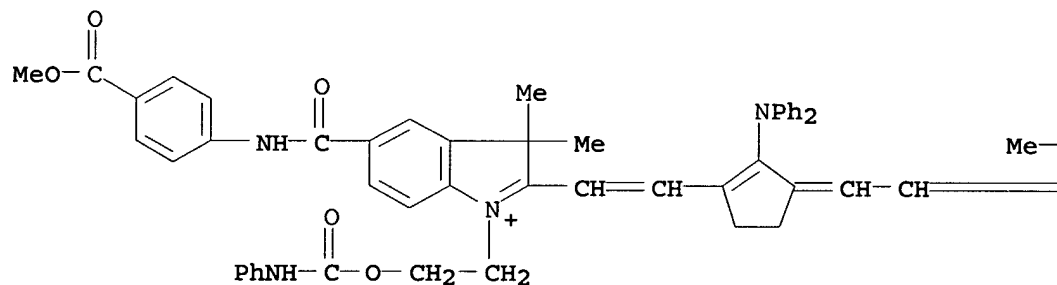
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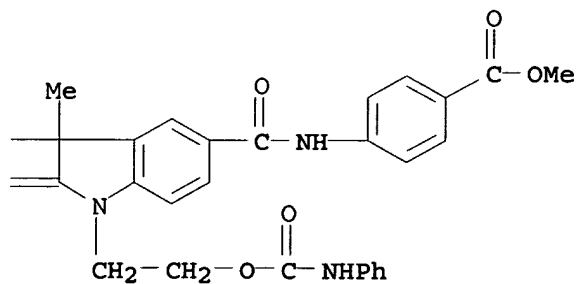
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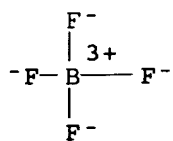


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CMF B F4

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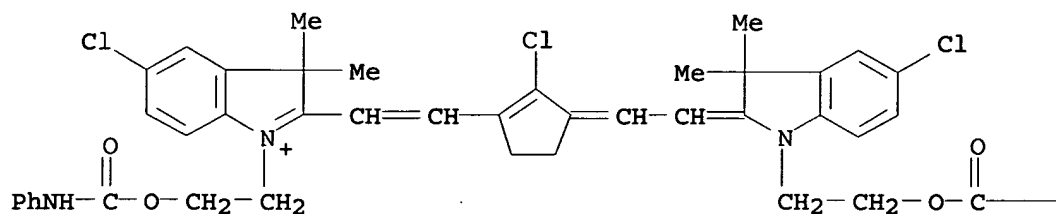


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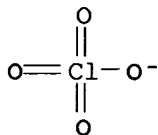


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—NHPh

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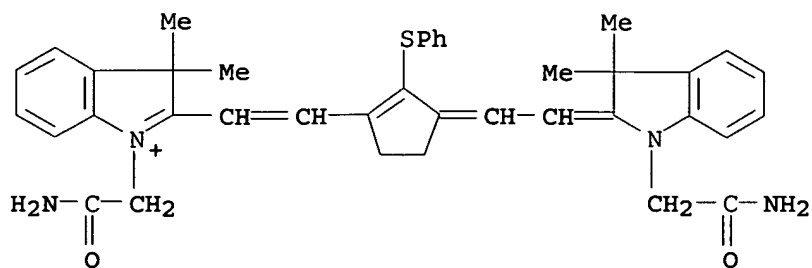
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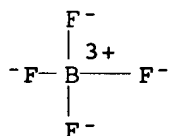


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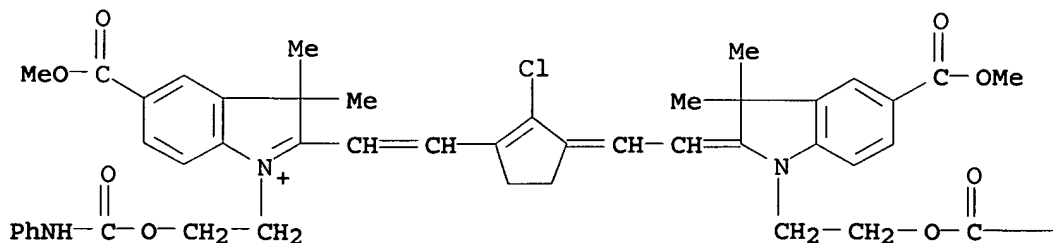
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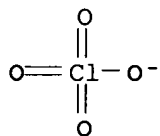
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CRN 14797-73-0

CMF Cl O4



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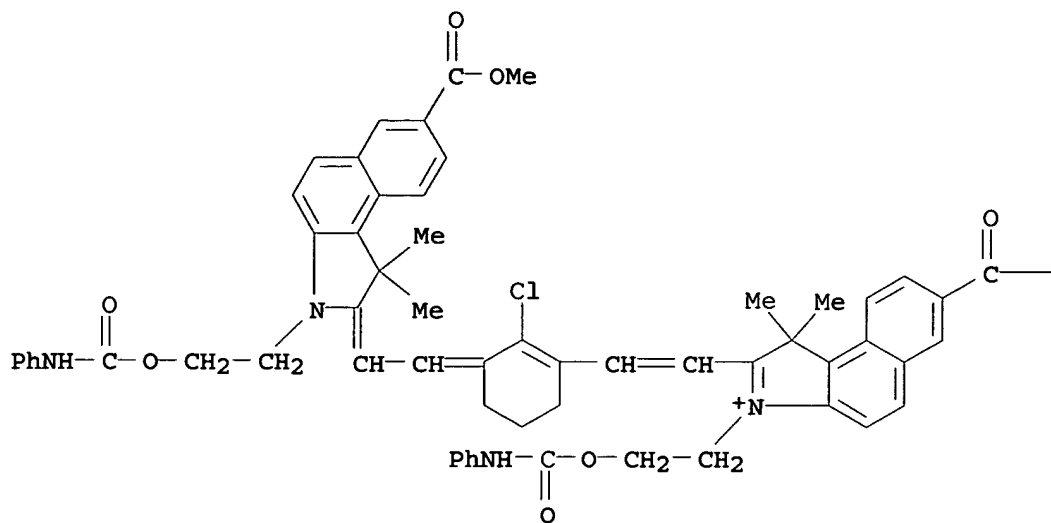
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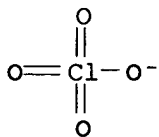
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CM .2

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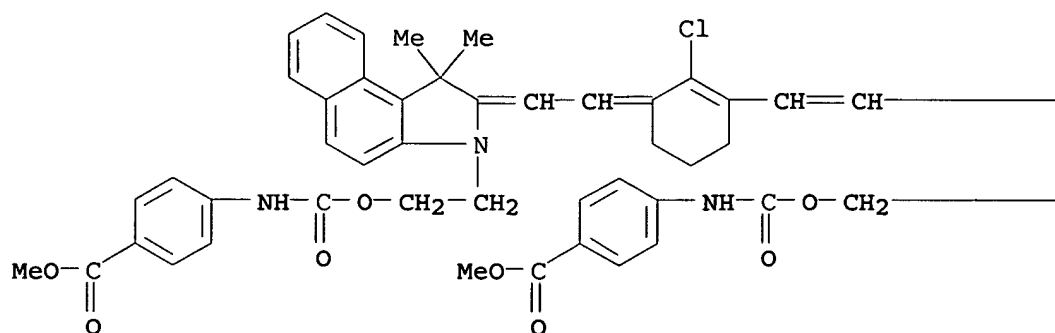
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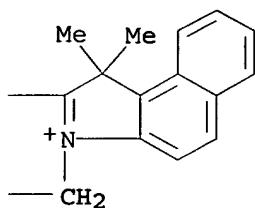
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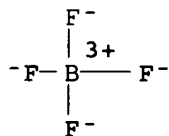


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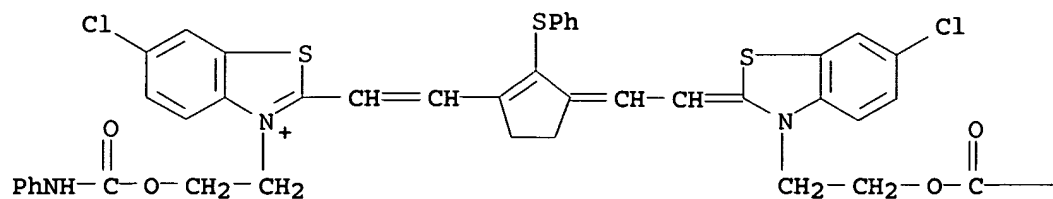
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PAGE 1-A



PAGE 1-B

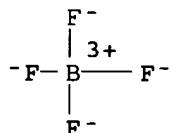
—NHPh

CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



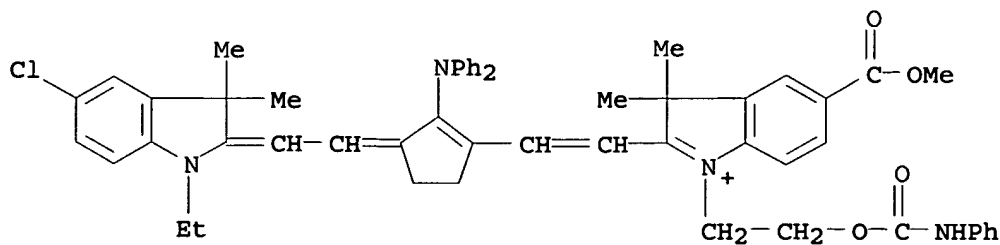
RN 864660-98-0 HCAPLUS

CN INDEX NAME NOT YET ASSIGNED

CM 1

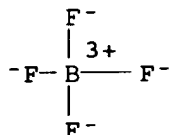
CRN 864660-97-9

CMF C54 H54 Cl N4 O4



CM 2

CRN 14874-70-5  
CMF B F4  
CCI CCS



IC ICM G03C001-492  
INCL 430270100  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)  
ST lithog printing plate curable compn image  
material  
IT Optical materials  
(IR absorbers; lithog. printing plate curable  
composition and image forming material containing)  
IT IR materials  
(absorbers; lithog. printing plate curable  
composition and image forming material containing)  
IT Cyanine dyes  
Lithographic plates  
(lithog. printing plate curable composition and  
image forming material containing)  
IT 864660-52-6 864660-54-8 864660-56-0  
864660-58-2 864660-60-6 864660-62-8  
864660-63-9 864660-64-0 864660-66-2  
864660-68-4 864660-70-8 864660-72-0  
864660-74-2 864660-76-4 864660-78-6  
864660-80-0 864660-82-2 864660-84-4  
864660-86-6 864660-88-8 864660-90-2  
864660-92-4 864660-94-6 864660-96-8  
864660-98-0  
(cyanine dye; lithog. printing plate curable  
composition and image forming material containing)

L36 ANSWER 4 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2005:732002 HCAPLUS  
DOCUMENT NUMBER: 143:202967  
TITLE: IR-sensitive negative-working polymerizable  
compositions suitable for  
presensitized lithographic printing  
plates  
INVENTOR(S): Taninaka, Hiromitsu; Goto, Takahiro  
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 55 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005215147	A2	<del>20050811</del>	JP 2004-19746	

USHA SHRESTHA EIC 1700 REM 4B28

2004  
0128

PRIORITY APPLN. INFO.:

JP 2004-19746

2004  
0128

AB The polymerizable **compns.** contain (a) oxime radical polymerization initiators YXON:C(Q)Z [X = carbonyl, sulfonyl, sulfoxide; Y = alkyl, alkenyl, alkynyl, aryl, etc.; Q, Z = monovalent nonmetallic substituent group (having substituents selected from H, O, halo, N, and S)], (b) ethylenic monomers, (c) IR-absorbing agents, and optionally (d) binder polymers bearing ethylenic double bonds. The **compns.** show high sensitivity to light and/or heat and high storage stability, and are suitable for the lithog. plates for IR laser direct CTP platemaking.

IT 183745-11-1

(IR absorber; photopolymerizable **composition** containing oxime polymerization initiator suitable for lithog. printing plate)

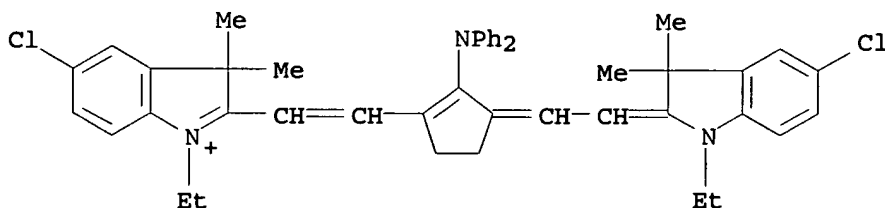
RN 183745-11-1 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1-ethyl-3,3-dimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 162717-38-6

CMF C45 H46 Cl2 N3

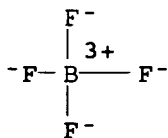


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IC ICM G03F007-028

ICS C08F002-50; C08F004-00; G03F007-00; G03F007-004; G03F007-038

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and

Other Reprographic Processes)  
 Section cross-reference(s): 35, 37, 38

ST neg working IR photopolymerizable **compn** polymn initiator oxime; **lithog** printing plate polymerizable **compn** polymn initiator oxime

IT Polyoxyalkylenes, preparation  
 (acrylic, photopolymd. layer of **lithog.** plate; photopolymerizable **composition** containing oxime polymerization initiator suitable for **lithog.** printing plate)

IT Photoimaging materials  
 (photopolymerizable, neg.-working; photopolymerizable **composition** containing oxime polymerization initiator suitable for **lithog.** printing plate)

IT Polymerization catalysts  
 (photopolymn.; photopolymerizable **composition** containing oxime polymerization initiator suitable for **lithog.** printing plate)

IT **Lithographic** plates  
 (presensitized; photopolymerizable **composition** containing oxime polymerization initiator suitable for **lithog.** printing plate)

IT 183745-11-1  
 (IR absorber; photopolymerizable **composition** containing oxime polymerization initiator suitable for **lithog.** printing plate)

IT 709037-26-3  
 (binder; photopolymerizable **composition** containing oxime polymerization initiator suitable for **lithog.** printing plate)

IT 64401-02-1  
 (monomer; photopolymerizable **composition** containing oxime polymerization initiator suitable for **lithog.** printing plate)

IT 861717-57-9P  
 (photopolymd. layer of **lithog.** plate; photopolymerizable **composition** containing oxime polymerization initiator suitable for **lithog.** printing plate)

IT 253585-83-0 861717-53-5 861717-54-6 861717-55-7 861717-56-8  
 (photopolymn. initiator; photopolymerizable **composition** containing oxime polymerization initiator suitable for **lithog.** printing plate)

L36 ANSWER 5 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2005:695804 HCAPLUS  
 DOCUMENT NUMBER: 143:163136  
 TITLE: Presensitized **lithographic** printing plates showing high sensitivity and high-temperature storage stability  
 INVENTOR(S): Shibuya, Akinori  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 83 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2005208133

A2

20050804

JP 2004-11913

2004

0120

PRIORITY APPLN. INFO.:

JP 2004-11913

2004

0120

AB The lithog. plates comprises, on supports, photopolymerizable layers containing sensitizing dyes, radical - or acid-generating agents upon interaction with the excited sensitizing dyes, ethylenic monomers, and plasticizers. Preferably, the plasticizers bear  $\geq 4$  ester groups. Also claimed are the lithog. plates showing small drop in dot area upon storage at 60% for 10 days (definition of the test and its allowable results given). The plasticizers remarkably improve storage stability of the plates.

IT 183745-11-1 860028-06-4  
(sensitizing dye; in presensitized lithog. plate having photopolymerizable layer containing plasticizer as storage stabilizer)

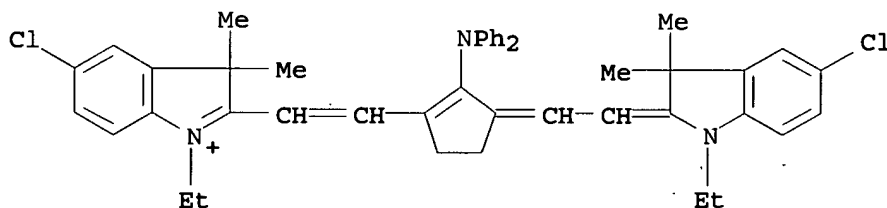
RN 183745-11-1 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1-ethyl-3,3-dimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 162717-38-6

CMF C45 H46 Cl2 N3

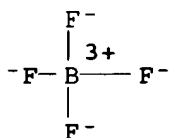


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



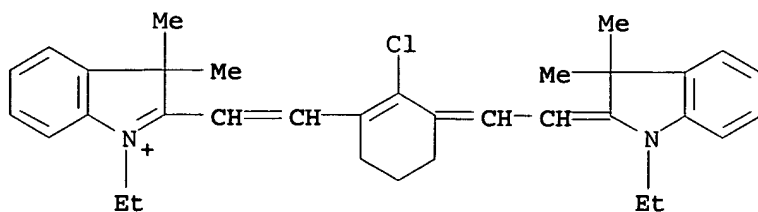
RN 860028-06-4 HCAPLUS

CN INDEX NAME NOT YET ASSIGNED

CM 1

CRN 110992-65-9

CMF C34 H40 Cl N2

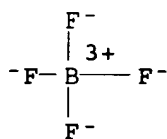


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



- IC ICM G03F007-00  
ICS G03F007-004; G03F007-26
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 38
- ST presensitized lithog printing plate photopolymerizable  
compn; plasticizer additive photopolymerizable  
compn lithog plate
- IT Polyethers, preparation  
Polyurethanes, preparation  
(acrylic, photopolymd. layer; presensitized lithog.  
plate having photopolymerizable layer containing plasticizer as  
storage stabilizer)
- IT Photoimaging materials  
(photopolymerizable; presensitized lithog. plate  
having photopolymerizable layer containing plasticizer as storage  
stabilizer)
- IT Lithographic plates  
(presensitized; presensitized lithog. plate having  
photopolymerizable layer containing plasticizer as storage  
stabilizer)
- IT 4986-89-4 67653-78-5 80937-22-0, UA 101H  
(monomer; in presensitized lithog. plate having  
photopolymerizable layer containing plasticizer as storage  
stabilizer)
- IT 29570-58-9P 57592-66-2P 113506-31-3P  
(photopolymd. layer; presensitized lithog. plate  
having photopolymerizable layer containing plasticizer as storage  
stabilizer)

stabilizer)

IT 1787-50-4 125051-32-3 125407-19-4 191726-69-9 745817-76-9  
(photopolymn. catalyst; in presensitized lithog.  
plate having photopolymerizable layer containing plasticizer as  
storage stabilizer)

IT 117-84-0 994-73-0 1330-78-5 22733-95-5 26719-50-6  
75975-63-2 122931-53-7 860028-07-5 860028-08-6 860028-09-7  
(plasticizer and storage stabilizer; in presensitized  
lithog. plate having photopolymerizable layer containing  
plasticizer as storage stabilizer)

IT 1628-58-6 118234-40-5 183745-11-1 293329-40-5  
506426-96-6 860028-04-2 860028-05-3 860028-06-4  
(sensitizing dye; in presensitized lithog. plate  
having photopolymerizable layer containing plasticizer as storage  
stabilizer)

L36 ANSWER 6 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:408526 HCAPLUS

DOCUMENT NUMBER: 142:438732

TITLE: Lithographic plates showing high  
sensitivity for direct IR-laser platemaking  
and good printability and yellow  
light-resistant photopolymerizable  
compositions therefor

INVENTOR(S): Kakino, Ryuki; Kunita, Kazuto; Fujimaki,  
Kazuhiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 86 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005122038	A2	20050512	JP 2003-359350	2003 1020
PRIORITY APPLN. INFO.:				2003 1020

OTHER SOURCE(S): MARPAT 142:438732

AB The **comps.** contain (A) ZYXCR1R2CO2H (R1, R2 = H, monovalent substituent; X = O, S, SO2, NR3; R3 = H, monovalent substituent other than aromatic; Y = divalent linking group containing no aromatic ring in main chain; Z = aromatic) or WXCRI1R2CO2H (R1, R2, X = same as above; W = H, same as R3), (B) **polymerizable** **comps.**, (C) **radical** initiators, and optionally (D) IR absorbers. Also claimed are lithog. plates having recording layers of the above **comps.** on supports.

IT 110992-66-0 110992-87-5  
(IR absorbers; yellow light-resistant photopolymerizable  
**comps.** for lithog. plates with high  
sensitivity for direct IR-laser platemaking and good  
printability)

RN 110992-66-0 HCAPLUS

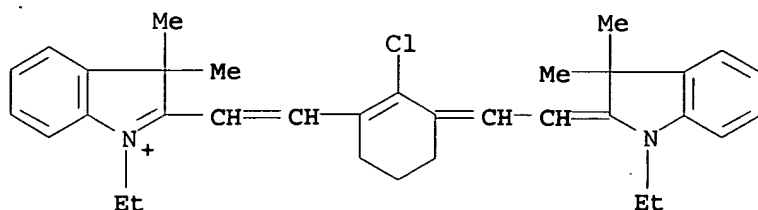
CN 3H-Indolium, 2-[2-[2-chloro-3-[(1-ethyl-1,3-dihydro-3,3-dimethyl-

2H-indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-ethyl-  
3,3-dimethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 110992-65-9

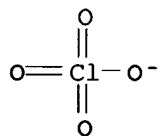
CMF C34 H40 Cl N2



CM 2

CRN 14797-73-0

CMF Cl O4



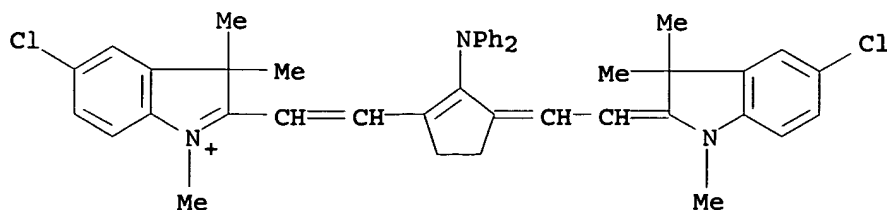
RN 110992-87-5 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-)  
(9CI) (CA INDEX NAME)

CM 1

CRN 110992-86-4

CMF C43 H42 Cl2 N3

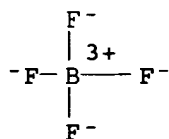


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



- IC ICM G03F007-004  
ICS C08F002-44; G03F007-00
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 38
- ST lithog plate direct IR laser platemaking; carboxylic acid photoimaging yellow light resistance; acrylic photopolymer light resistance presensitized lithog plate
- IT Optical materials  
(IR absorbers; yellow light-resistant photopolymerizable compns. for lithog. plates with high sensitivity for direct IR-laser platemaking and good printability)
- IT IR materials  
(absorbers; yellow light-resistant photopolymerizable compns. for lithog. plates with high sensitivity for direct IR-laser platemaking and good printability)
- IT Lithographic plates  
(neg.-working presensitized; yellow light-resistant photopolymerizable compns. for lithog. plates with high sensitivity for direct IR-laser platemaking and good printability)
- IT Photoimaging materials  
(photopolymerizable; yellow light-resistant photopolymerizable compns. for lithog. plates with high sensitivity for direct IR-laser platemaking and good printability)
- IT 110992-66-0 110992-87-5  
(IR absorbers; yellow light-resistant photopolymerizable compns. for lithog. plates with high sensitivity for direct IR-laser platemaking and good printability)
- IT 98-88-4, Benzoyl chloride 142-73-4, Iminodiacetic acid 704-65-4, o-Acetoxybenzyl bromide  
(in preparation of carboxylic acid compds.; yellow light-resistant photopolymerizable compns. for lithog. plates with high sensitivity for direct IR-laser platemaking and good printability)
- IT 29570-58-9  
(monomers; yellow light-resistant photopolymerizable compns. for lithog. plates with high sensitivity for direct IR-laser platemaking and good printability)
- IT 676349-80-7 790225-29-5  
(radical polymerization initiators; yellow light-resistant photopolymerizable compns. for lithog. plates with high sensitivity for direct IR-laser platemaking and good printability)
- IT 7372-13-6P 20722-11-6P

(yellow light-resistant photopolymerizable **compns.**  
for **lithog.** plates with high sensitivity for direct  
IR-laser platemaking and good printability)

IT 850754-62-0P 850754-65-3P  
(yellow light-resistant photopolymerizable **compns.**  
for **lithog.** plates with high sensitivity for direct  
IR-laser platemaking and good printability)

IT 54884-96-7 71995-54-5 147974-54-7 220335-84-2 850754-51-7  
850754-52-8 850754-53-9 850754-54-0 850754-55-1  
850754-56-2 850754-57-3 850754-58-4  
(yellow light-resistant photopolymerizable **compns.**  
for **lithog.** plates with high sensitivity for direct  
IR-laser platemaking and good printability)

IT 50583-46-5 850754-60-8  
(yellow light-resistant photopolymerizable **compns.**  
for **lithog.** plates with high sensitivity for direct  
IR-laser platemaking and good printability)

L36 ANSWER 7 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2005:212591 HCAPLUS  
DOCUMENT NUMBER: 142:306466  
TITLE: Photopolymerizable photoimaging  
**composition** and negatively-working  
directly-imaging **lithographic**  
printing plate precursors therefrom  
INVENTOR(S): Fujimaki, Kazuhiro  
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 81 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005062482	A2	20050310	JP 2003-292530	2003 0812
PRIORITY APPLN. INFO.: JP 2003-292530				2003 0812

AB The title **composition** contains a radical  
**polymerization** initiator, a radical **polymerization**  
co-initiator of  $\leq 1.10$  V oxidation potential, an IR-absorber,  
and radically polymerizable compds. The **composition** shows  
high sensitivity and good storageability and provides highly  
durable layers.

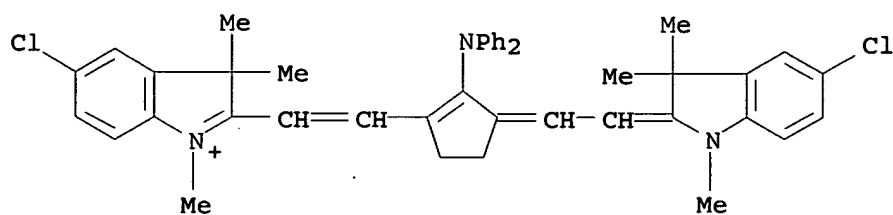
IT 110992-87-5 835902-38-0  
(IR-absorber in **composition**)

RN 110992-87-5 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-  
trimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-  
cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-)  
(9CI) (CA INDEX NAME)

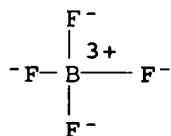
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CRN 110992-86-4  
CMF C43 H42 Cl2 N3



CM 2

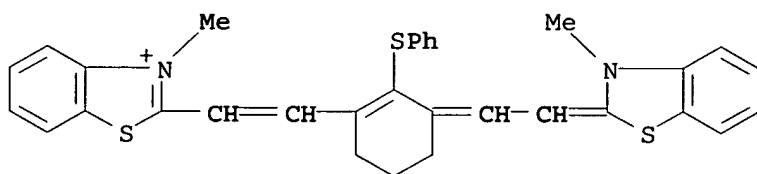
CRN 14874-70-5  
CMF B F4  
CCI CCS



RN 835902-38-0 HCAPLUS  
CN Benzothiazolium, 3-methyl-2-[2-[3-[(3-methyl-2(3H)-benzothiazolylidene)ethylidene]-2-(phenylthio)-1-cyclohexen-1-yl]ethenyl]-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

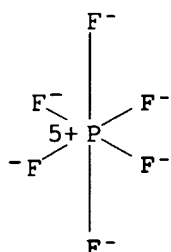
CM 1

CRN 835902-37-9  
CMF C32 H29 N2 S3



CM 2

CRN 16919-18-9  
CMF F6 P  
CCI CCS



- IC ICM G03F007-029  
ICS C08F002-44; C08F002-50; G03F007-004; G03F007-00
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST photopolymerizable photoimaging **compn** neg lithog  
printing plate precursor
- IT **Lithographic** plates  
(photopolymerizable photoimaging **composition** and neg.-working directly-imaging lithog. printing plate precursors therefrom)
- IT Photoimaging materials  
(photopolymerizable; photopolymerizable photoimaging **composition** and neg.-working directly-imaging lithog. printing plate precursors therefrom)
- IT 110992-87-5 603959-43-9 835902-38-0  
(IR-absorber in **composition**)
- IT 603-34-9D, radical polymerization co-initiator  
1628-58-6D, radical polymerization co-initiator  
19525-59-8D, radical polymerization co-initiator  
511304-75-9D, radical polymerization co-initiator  
847573-63-1D, radical polymerization co-initiator  
847573-64-2D, radical polymerization co-initiator  
847590-95-8D, radical polymerization co-initiator  
847590-96-9D, radical polymerization co-initiator  
847590-98-1D, radical polymerization co-initiator  
847590-99-2D, radical polymerization co-initiator  
847591-01-9D, radical polymerization co-initiator  
847591-02-0D, radical polymerization co-initiator  
(radical polymerization co-initiator in **composition**)
- IT 676349-78-3 761432-18-2 790225-29-5  
(radical polymerization initiator in **compn** .)
- IT 29570-58-9 80937-22-0 91105-84-9 761432-20-6 847565-07-5  
847573-65-3  
(radically polymerizable compds. in **composition**)

L36 ANSWER 8 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:209978 HCAPLUS

DOCUMENT NUMBER: 142:306465

TITLE: Photopolymerizable photoimaging **composition** and negatively-working directly-imaging lithographic printing plate precursors made thereof

INVENTOR(S): Fujimaki, Kazuhiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 81 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005062478	A2	20050310	JP 2003-292453	2003 0812

PRIORITY APPLN. INFO.:

JP 2003-292453

2003  
0812

AB The title **composition** contains a compound with an amino groups and hydroxy groups, an IR-absorber, a **radical polymerization** initiator, and ethylenic unsatd. compds. The **composition** shows high sensitivity and good storageability and provides highly durable layers.

IT 110992-87-5 835902-38-0  
 (IR-absorber in **composition**)

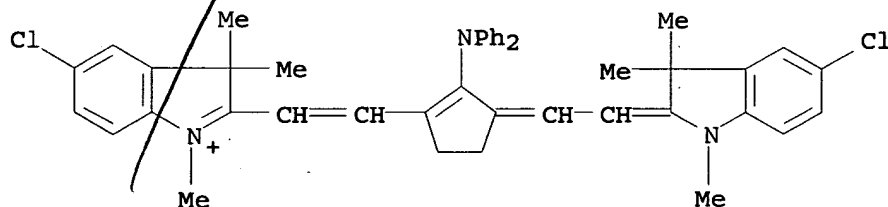
RN 110992-87-5 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-)  
 (9CI) (CA INDEX NAME)

CM 1

CRN 110992-86-4

CMF C43 H42 Cl2 N3

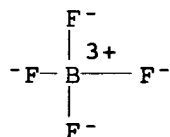


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



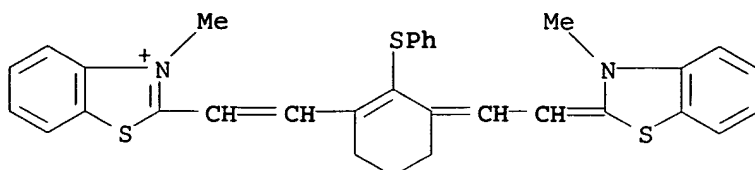
RN 835902-38-0 HCAPLUS

CN Benzothiazolium, 3-methyl-2-[2-[3-[(3-methyl-2(3H)-benzothiazolylidene)ethylidene]-2-(phenylthio)-1-cyclohexen-1-yl]ethenyl]-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 835902-37-9

CMF C32 H29 N2 S3

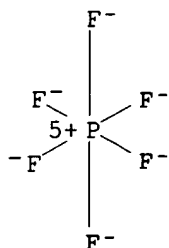


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



IC ICM G03F007-004  
ICS C08F002-44; G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST photopolymerizable photoimaging **compn** neg **lithog**  
printing plate precursor

IT Photolithography  
(photopolymerizable photoimaging **composition** and neg.-working directly-imaging **lithog.** printing plate precursors therefrom)

IT Photoimaging materials  
(photopolymerizable; photopolymerizable photoimaging **composition** and neg.-working directly-imaging **lithog** . printing plate precursors therefrom)

IT 110992-87-5 835902-38-0  
(IR-absorber in **composition**)

IT 93-90-3 102-71-6, uses 111-42-2, uses 120-07-0 122-96-3,  
1,4-Piperazinediethanol 140-07-8 732-51-4 3040-44-6,  
1-Piperidineethanol 6303-96-4 6315-51-1 13127-77-0  
19721-54-1 27076-96-6 71345-85-2 89943-04-4 91645-48-6  
121459-15-2, 1H-Indole-1-ethanol 847564-87-8 847564-92-5  
847564-93-6 847564-95-8  
(compound with an amino groups and hydroxy groups in

composition)  
 IT 761432-20-6 847565-07-5  
 (ethylenic unsatd. compds. in composition)  
 IT 120307-06-4 253585-83-0 603959-43-9 676349-78-3  
 761432-18-2 790225-29-5 847565-03-1  
 (radical polymerization initiator in compn  
 .)

L36 ANSWER 9 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:904356 HCAPLUS  
 DOCUMENT NUMBER: 141:386412  
 TITLE: Polymerizable composition and lithographic original plate using it  
 INVENTOR(S): Shimada, Kazuto  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 73 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004301915	A2	20041028	JP 2003-91916	2003 0328

PRIORITY APPLN. INFO.: JP 2003-91916

2003  
0328  
2003  
0328

AB The composition contains (A) a compound with absorption max at 700-1200 nm, (B) a compound with absorption max at 700-1200 nm and having luminescence intensity at 750-1300 nm different from that of A, (C) a radical polymerization initiator, and (D) an ethylenic unsatd. compound. The lithog. original plate with the composition on a support is claimed. High quality image with fine dot is obtained using high intensity IR laser beam.

IT 134127-48-3 183745-11-1 669714-62-9  
 669714-63-0 669714-65-2 669714-67-4  
 669714-71-0 779332-17-1

(IR laser-sensitive neg.-working lithog. plate using specific dyes)

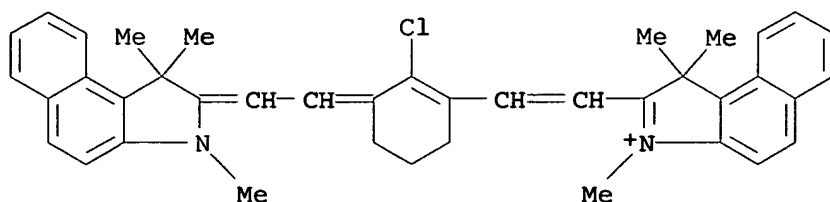
RN 134127-48-3 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1)  
 (9CI) (CA INDEX NAME)

CM 1

CRN 134127-47-2

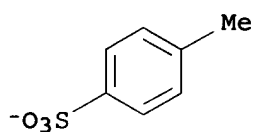
CMF C40 H40 Cl N2



CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



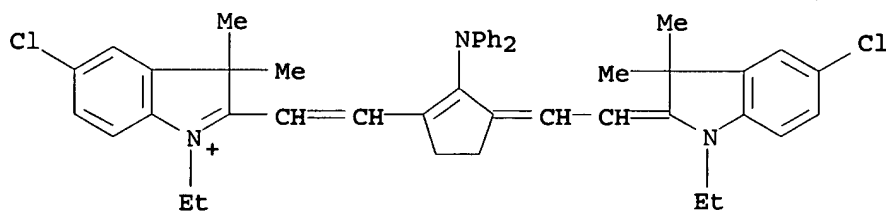
RN 183745-11-1 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1-ethyl-3,3-dimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 162717-38-6

CMF C45 H46 Cl2 N3

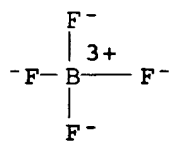


CM 2

CRN 14874-70-5

CMF B F4

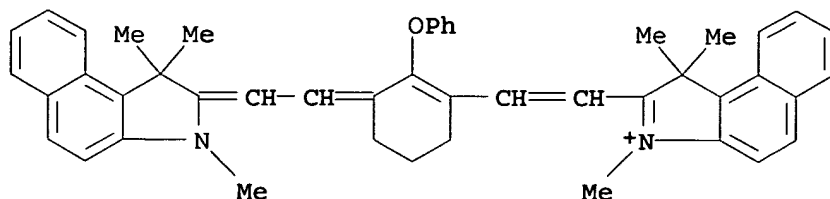
CCI CCS



RN 669714-62-9 HCAPLUS  
 CN 1H-Benz[e]indolium, 2-[2-[3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-phenoxy-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, perchlorate (9CI) (CA INDEX NAME)

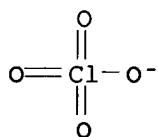
CM 1

CRN 669714-61-8  
 CMF C46 H45 N2 O



CM 2

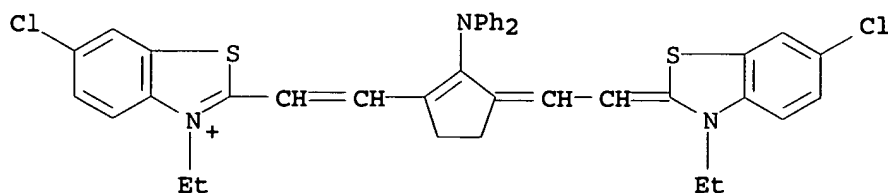
CRN 14797-73-0  
 CMF Cl O4



RN 669714-63-0 HCAPLUS  
 CN Benzothiazolium, 6-chloro-2-[2-[3-[(6-chloro-3-ethyl-2(3H)-benzothiazolylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-3-ethyl-, perchlorate (9CI) (CA INDEX NAME)

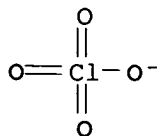
CM 1

CRN 98970-05-9  
 CMF C39 H34 Cl2 N3 S2



CM 2

CRN 14797-73-0  
 CMF Cl O4

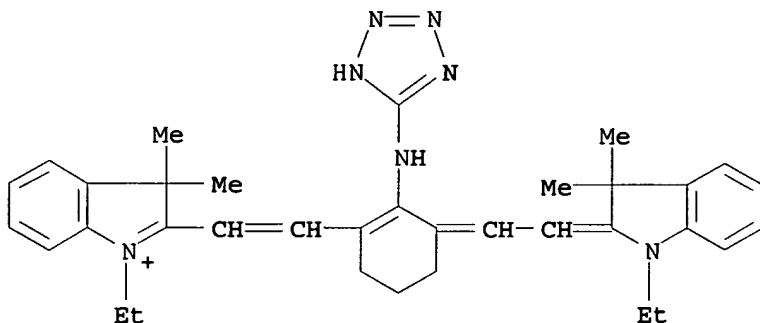


RN 669714-65-2 HCAPLUS  
 CN 3H-Indolium, 1-ethyl-2-[2-[3-[(1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)ethylidene]-2-(1H-tetrazol-5-ylamino)-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-, methanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 669714-64-1

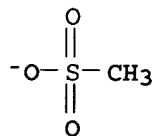
CMF C35 H42 N7



CM 2

CRN 16053-58-0

CMF C H3 O3 S

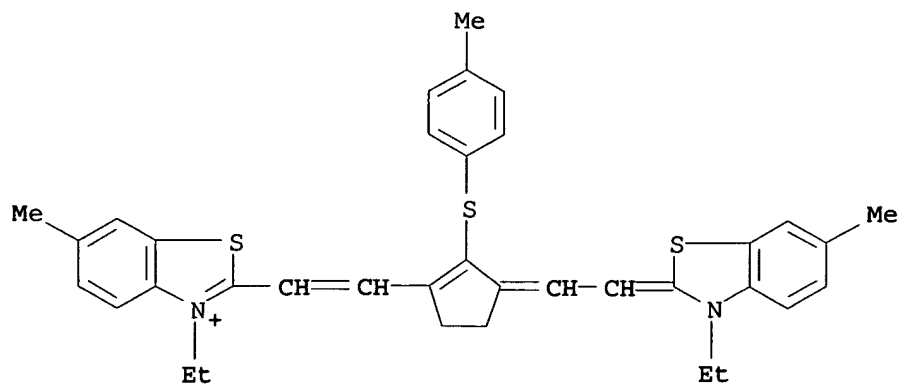


RN 669714-67-4 HCAPLUS  
 CN Benzothiazolium, 3-ethyl-2-[2-[3-[(3-ethyl-6-methyl-2(3H)-benzothiazolylidene)ethylidene]-2-[(4-methylphenyl)thio]-1-cyclopenten-1-yl]ethenyl]-6-methyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 669714-66-3

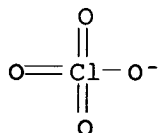
CMF C36 H37 N2 S3



CM 2

CRN 14797-73-0

CMF Cl O4



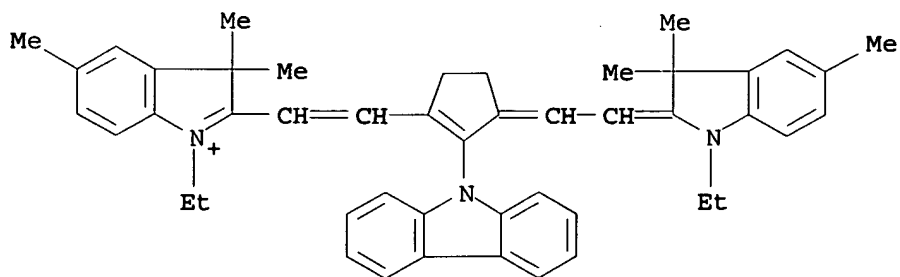
RN 669714-71-0 HCAPLUS

CN 3H-Indolium, 2-[2-[2-(9H-carbazol-9-yl)-3-[(1-ethyl-1,3-dihydro-3,3,5-trimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1-ethyl-3,3,5-trimethyl-, hexafluorophosphate(1-)  
(9CI) (CA INDEX NAME)

CM 1

CRN 669714-70-9

CMF C47 H50 N3

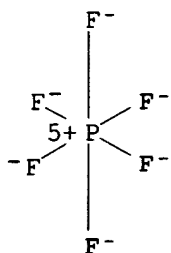


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS

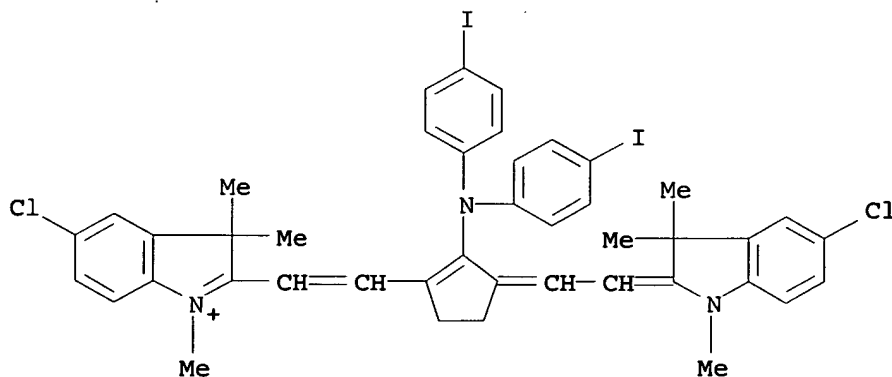


RN 779332-17-1 HCAPLUS  
 CN 3H-Indolium, 2-[2-[2-[bis(4-iodophenyl)amino]-3-[(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylydene]-1-cyclopenten-1-yl]ethenyl]-5-chloro-1,3,3-trimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 779332-16-0

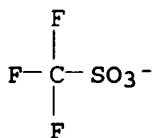
CMF C43 H40 Cl2 I2 N3



CM 2

CRN 37181-39-8

CMF C F3 O3 S



IC ICM G03F007-004  
 ICS G03F007-00; G03F007-028  
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38, 41  
 ST lithog plate dye IR laser absorption  
 IT **Lithographic plates**  
 (IR laser-sensitive neg.-working lithog. plate using specific dyes)  
 IT Dyes  
 (IR-absorbing; IR laser-sensitive neg.-working lithog. plate using specific dyes)  
 IT 79-09-4D, Propionic acid, reaction products with dipentaerythritol pentaacrylate 56347-72-9 60506-81-2D, Dipentaerythritol pentaacrylate, reaction products with propionic acid 83045-04-9, Kayarad D 310 134127-48-3 155614-01-0 183745-11-1 260967-26-8 313344-60-4 449762-40-7 460337-34-2 667888-56-4 669714-62-9 669714-63-0 669714-65-2 669714-67-4 669714-71-0 669714-73-2 669714-76-5 779332-17-1 779332-19-3 779332-20-6 780755-67-1 781628-97-5, U 410  
 (IR laser-sensitive neg.-working lithog. plate using specific dyes)  
 IT 3584-23-4 104222-30-2 287925-54-6 761432-16-0 779332-21-7  
 (radical polymerization initiator; IR laser-sensitive neg.-working lithog. plate using specific dyes)

L36 ANSWER 10 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:801612 HCAPLUS  
 DOCUMENT NUMBER: 141:304332  
 TITLE: Polymerizable **compositions** with excellent IR sensitivity and wear-resistant lithographic printing plates using them  
 INVENTOR(S): Shimada, Kazuto; Kunita, Kazuto  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 93 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004271692	A2	<u>20040930</u>	JP 2003-59806	2003 0306
PRIORITY APPLN. INFO.:				2003 0306
				2003 0306

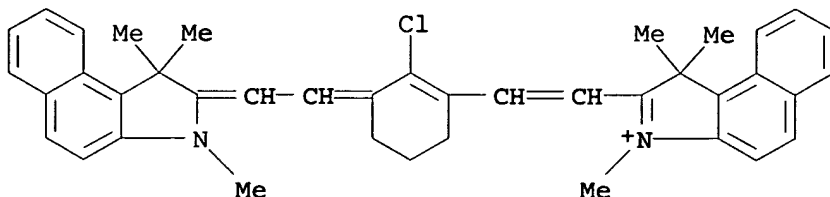
OTHER SOURCE(S): MARPAT 141:304332  
 AB The **comps.**, useful for direct platemaking, contain radical polymerization initiators and comps.  
 $Z(Ar1CR1:COH2)_n$  (Ar1 = arylene, divalent heterocycle; R1 = H, C1-6 alkyl; Z = organic linking group with valence of n; n = 1-20), thus giving images with no defects.  
 IT 761432-01-3 761432-02-4  
 (IR absorber; addition-polymerizable **comps.** containing ethylenically unsatd. comps. for presensitized neg.)

lithog. plates with good wear resistance)

RN 761432-01-3 HCAPLUS  
 CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

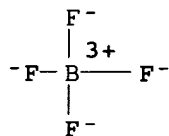
CM 1

CRN 134127-47-2  
 CMF C40 H40 Cl N2



CM 2

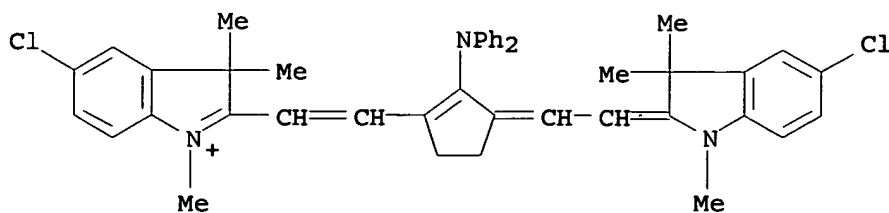
CRN 14874-70-5  
 CMF B F4  
 CCI CCS



RN 761432-02-4 HCAPLUS  
 CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 110992-86-4  
 CMF C43 H42 Cl2 N3

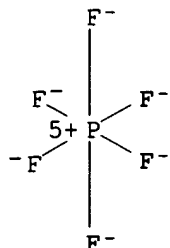


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



- IC ICM G03F007-027  
ICS G03F007-00; G03F007-004; G03F007-038
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 38
- ST lithog plate printing dot wear resistance; addn polymn ethylenic compd direct platemaking; cyanine dye IR absorber lithog plate
- IT Optical materials  
(IR absorbers, cyanine dye; addition-polymerizable **compns** . containing ethylenically unsatd. compds. for presensitized neg. lithog. plates with good wear resistance)
- IT IR materials  
(absorbers, cyanine dye; addition-polymerizable **compns**. containing ethylenically unsatd. compds. for presensitized neg. lithog. plates with good wear resistance)
- IT Lithographic plates  
(neg.-working presensitized; addition-polymerizable **compns** . containing ethylenically unsatd. compds. for presensitized neg. lithog. plates with good wear resistance)
- IT 761432-01-3 761432-02-4  
(IR absorber; addition-polymerizable **compns**. containing ethylenically unsatd. compds. for presensitized neg. lithog. plates with good wear resistance)
- IT 107935-24-0, Allyl methacrylate-methacrylic acid-methyl methacrylate copolymer 761432-20-6  
(binder; addition-polymerizable **compns**. containing ethylenically unsatd. compds. for presensitized neg. lithog. plates with good wear resistance)
- IT 116237-20-8 225239-26-9 761432-03-5 761432-04-6  
761432-05-7 761432-07-9 761432-08-0 761432-10-4  
761432-11-5 761432-12-6 761432-14-8  
(polymerizable compound; addition-polymerizable **compns**. containing ethylenically unsatd. compds. for presensitized neg. lithog. plates with good wear resistance)
- IT 3584-23-4 761432-16-0 761432-18-2  
(radical generator; addition-polymerizable **compns**. containing ethylenically unsatd. compds. for presensitized neg. lithog. plates with good wear resistance)
- IT 7429-90-5, Aluminum, uses  
(support; addition-polymerizable **compns**. containing ethylenically unsatd. compds. for presensitized neg.

lithog. plates with good wear resistance)

L36 ANSWER 11 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:798784 HCAPLUS

DOCUMENT NUMBER: 141:304324

TITLE: Polymerizable compositions  
containing certain cyanine dyes with excellent  
storage stability and IR sensitivity and  
presensitized lithographic plates  
using them

INVENTOR(S): Shimada, Kazuto

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 65 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	----	-----	
JP 2004271594	A2	20040930	JP 2003-58410	2003 0305

PRIORITY APPLN. INFO.:

JP 2003-58410

2003  
0305

AB The compns., useful for direct platemaking, contain  
cyanine dyes (maximum absorption at 700-1200 nm) with inorg. counter  
anions, radical generators, and  
polymerizable unsatd. compds., thus giving images with no  
fogging.

IT 110992-87-5 183745-11-1 193687-63-7

197087-00-6 761305-91-3 761305-98-0

761306-09-6 761306-17-6 761306-27-8

(cyanine dye; polymerizable compns. containing certain  
cyanine dyes with good storage stability and IR sensitivity for  
presensitized lithog. plates)

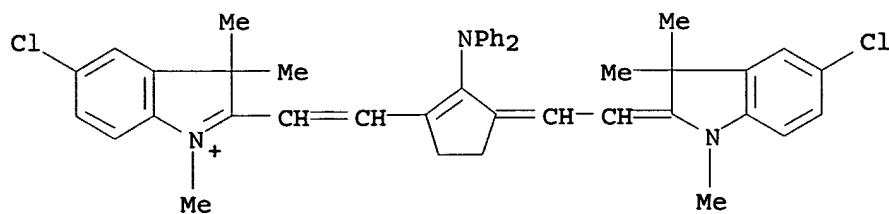
RN 110992-87-5 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-  
trimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-  
cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-)  
(9CI) (CA INDEX NAME)

CM 1

CRN 110992-86-4

CMF C43 H42 Cl2 N3

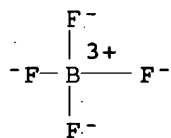


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



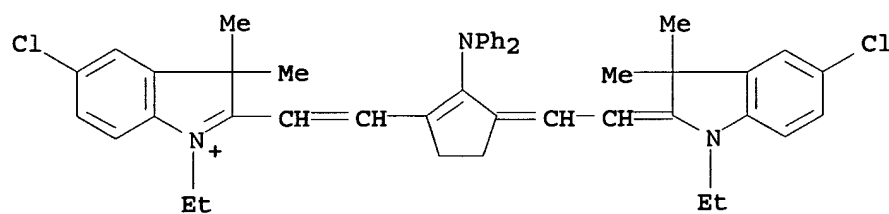
RN 183745-11-1 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1-ethyl-3,3-dimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 162717-38-6

CMF C45 H46 Cl2 N3

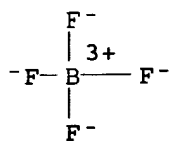


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



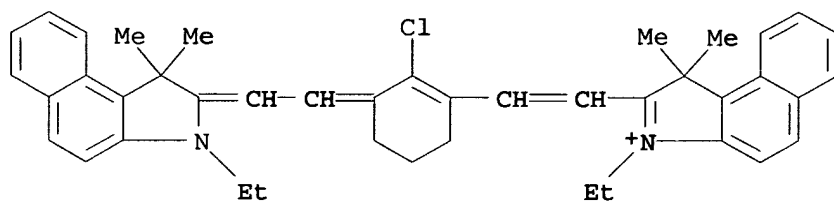
RN 193687-63-7 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(3-ethyl-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-3-ethyl-1,1-dimethyl-, tetrafluoroborate(1-) (9CI)  
(CA INDEX NAME)

CM 1

CRN 193687-62-6

CMF C42 H44 Cl N2

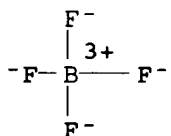


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



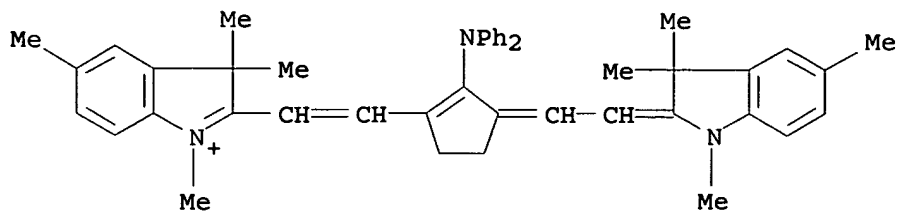
RN 197087-00-6 HCAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3,5-tetramethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3,5-tetramethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 183745-00-8

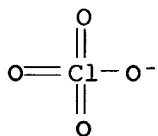
CMF C45 H48 N3



CM 2

CRN 14797-73-0

CMF Cl O4



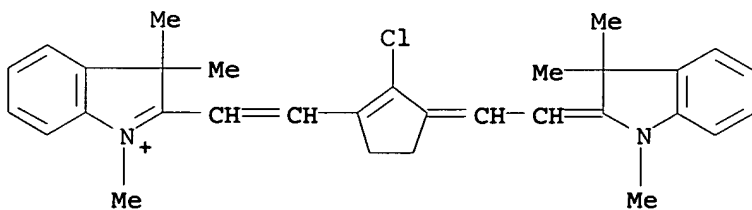
RN 761305-91-3 HCAPLUS

CN 3H-Indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 69415-29-8

CMF C31 H34 Cl N2

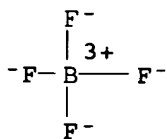


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS

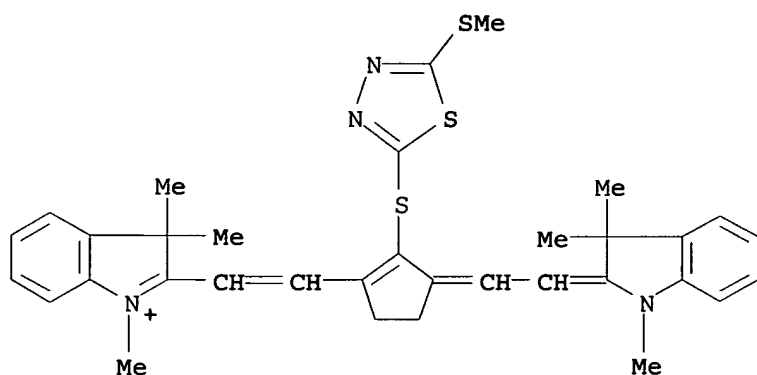


RN 761305-98-0 HCAPLUS  
 CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-[[5-(methylthio)-1,3,4-thiadiazol-2-yl]thio]-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-)  
 ) (9CI) (CA INDEX NAME)

CM 1

CRN 328063-87-2

CMF C34 H37 N4 S3

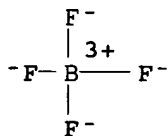


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS

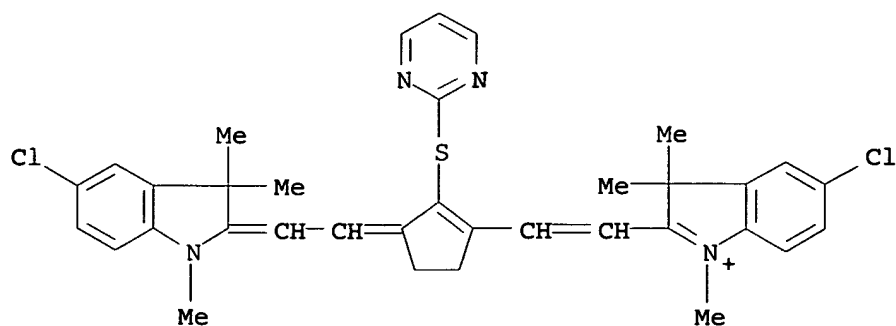


RN 761306-09-6 HCAPLUS  
 CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(2-pyrimidinylthio)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-)  
 ) (9CI) (CA INDEX NAME)

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CRN 761306-08-5

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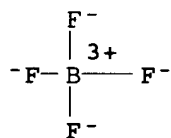


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



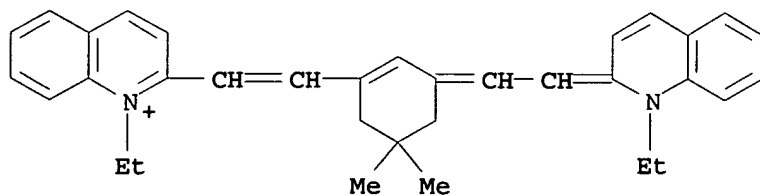
RN 761306-17-6 HCAPLUS

CN Quinolinium, 1-ethyl-2-[2-[3-[(1-ethyl-2(1H)-quinolinylidene)ethylidene]-5,5-dimethyl-1-cyclohexen-1-yl]ethenyl]-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

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CRN 761306-16-5

CMF C34 H37 N2

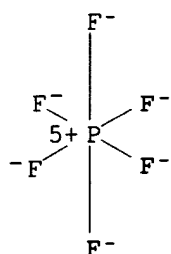


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



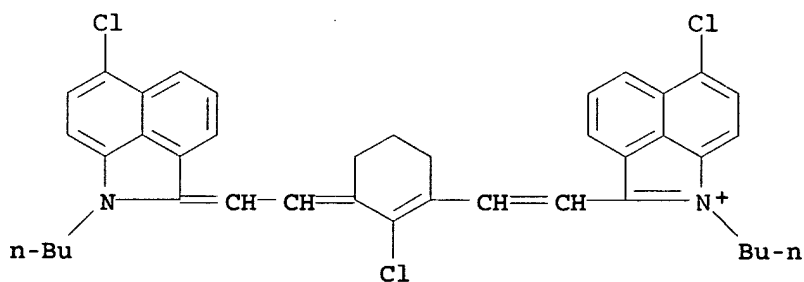
RN 761306-27-8 HCAPLUS

CN Benz[cd]indolium, 1-butyl-2-[2-[3-[(1-butyl-6-chlorobenz[cd]indol-2(1H)-ylidene)ethylidene]-2-chloro-1-cyclohexen-1-yl]ethenyl]-6-chloro-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 155613-97-1

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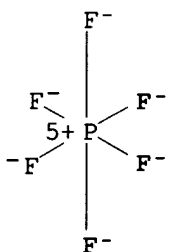


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



IC ICM G03F007-028

ICS C08F002-50; G03F007-00; G03F007-038

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

ST cyanine dye IR absorber polymerizable compn;

- lithog** plate cyanine counter anion bromide; storage stability presensitized **lithog** printing plate
- IT Cyanine dyes  
(IR absorber; polymerizable **compns.** containing certain cyanine dyes with good storage stability and IR sensitivity for presensitized **lithog.** plates)
- IT Optical materials  
(IR absorbers, cyanine dye; polymerizable **compns.** containing certain cyanine dyes with good storage stability and IR sensitivity for presensitized **lithog.** plates)
- IT IR materials  
(absorbers, cyanine dye; polymerizable **compns.** containing certain cyanine dyes with good storage stability and IR sensitivity for presensitized **lithog.** plates)
- IT **Lithographic** plates  
(neg.-working presensitized; polymerizable **compns.** containing certain cyanine dyes with good storage stability and IR sensitivity for presensitized **lithog.** plates)
- IT 761306-34-7 761306-43-8  
(binder; polymerizable **compns.** containing certain cyanine dyes with good storage stability and IR sensitivity for presensitized **lithog.** plates)
- IT 110992-87-5 183745-11-1 193687-63-7  
197087-00-6 761305-91-3 761305-98-0  
761306-09-6 761306-17-6 761306-27-8  
(cyanine dye; polymerizable **compns.** containing certain cyanine dyes with good storage stability and IR sensitivity for presensitized **lithog.** plates)
- IT 4986-89-4, Pentaerythritol tetraacrylate 29570-58-9,  
Dipentaerythritol hexaacrylate  
(polymerizable compound; polymerizable **compns.** containing certain cyanine dyes with good storage stability and IR sensitivity for presensitized **lithog.** plates)
- IT 125428-43-5 253585-83-0 676349-80-7  
(radical generator; polymerizable **compns.** containing certain cyanine dyes with good storage stability and IR sensitivity for presensitized **lithog.** plates)
- IT 7429-90-5, Aluminum, uses  
(support; polymerizable **compns.** containing certain cyanine dyes with good storage stability and IR sensitivity for presensitized **lithog.** plates)

L36 ANSWER 12 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2003:693243 HCAPLUS  
 DOCUMENT NUMBER: 139:221635  
 TITLE: Photopolymerizable **composition** for  
**lithographic** printing plate precursor  
 INVENTOR(S): Sugasaki, Atsushi; Kunita, Kazuto  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 51 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 1341040 A1 20030903 EP 2003-4376

2003  
0303

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,  
MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ,  
EE, HU, SK

JP 2003252939 A2 20030910 JP 2002-55881

2002  
0301

US 2003207204 A1 20031106 US 2003-376257

2003  
0303

PRIORITY APPLN. INFO.:

JP 2002-55881

A

2002  
0301

AB The present invention relates to a photopolymerizable **composition** useful in stereolithog. holog. image forming materials; particularly relates to a photopolymerizable resin **composition** suited for use in a lithog. printing plate precursor capable of direct platemaking based on digital data from a computer. A photopolymerizable **composition** comprises a polymer having a **radical polymerizable** group and a unit represented by  $\text{RaC(RbX1)CQ1CH2}$  ( $\text{Q1}$  = cyano group,  $\text{COX2}$ ;  $\text{X1,2}$  = -R-, halogen atom; R = hetero atom; Ra,b = H, halogen atom, cyano group, organic residual group;  $\text{X1}$  and  $\text{X2}$  may be taken together to form a cyclic structure;  $\text{R1}$  and  $\text{Rb}$  may be taken together to form a cyclic structure;  $\text{X1}$  and  $\text{Ra}$  or  $\text{Rb}$  may be taken together to form a cyclic structure).

IT 443919-35-5

(photopolymn. initiator; photopolymerizable **composition** for lithog. printing plate precursor)

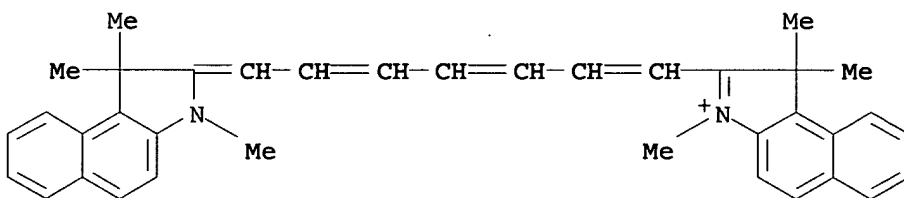
RN 443919-35-5 HCAPLUS

CN 1H-Benz[e]indolium, 2-[7-(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)-1,3,5-heptatrienyl]-1,1,3-trimethyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

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CRN 47809-39-2

CMF C37 H37 N2

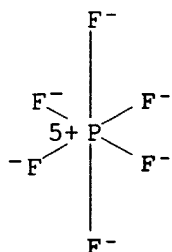


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



IC ICM G03F007-038  
ICS B41C001-10; B41M005-40

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 35, 38

ST photopolymerizable compn lithog printing plate precursor

IT Holography  
Lithographic plates  
Stereolithography  
(photopolymerizable composition for)

IT Polymerization  
(photopolymn.; photopolymerizable composition for lithog. printing plate precursor)

IT 590419-07-1P  
(photopolymerizable composition for lithog. printing plate precursor)

IT 590419-04-8 590419-09-3 590419-11-7 590419-13-9  
590419-14-0 590419-15-1 590419-17-3  
(photopolymerizable composition for lithog. printing plate precursor)

IT 4986-89-4, Pentaerythritol tetraacrylate 29570-58-9,  
DiPentaerythritol hexaacrylate 590419-29-7  
(photopolymerizable composition for lithog. printing plate precursor)

IT 125051-32-3, CGI-784 293329-25-6 304882-18-6  
443919-35-5 539854-53-0 590419-18-4 590419-19-5  
590419-20-8 590419-21-9 590419-23-1 590419-25-3  
590419-27-5 590419-28-6 591204-66-9  
(photopolymn. initiator; photopolymerizable composition for lithog. printing plate precursor)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L36 ANSWER 13 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:505026 HCAPLUS

DOCUMENT NUMBER: 140:199795

TITLE: What affects the rate of free radical polymerization of a multifunctional acrylate photoinitiated by cyanine borate salts? Part II. Application of electron transfer theory

AUTHOR(S): Kabatc, Janina; Paczkowski, Jerzy; Karolczak, Jerzy

CORPORATE SOURCE: Fac. of Chem. Technol. and Eng., Univ. of Technol. and Agriculture, Bydgoszcz, 85-326, Pol.

SOURCE: Polimery (Warsaw, Poland) (2003), 48(6),  
425-433

CODEN: POLIA4; ISSN: 0032-2725

PUBLISHER: Instytut Chemii Przemyslowej

DOCUMENT TYPE: Journal

LANGUAGE: English

AB On the basis of Schuster's investigation, a mechanism of the processes going on during radical polymerization of trimethylolpropane triacrylate, photoinitiated by cyanine borate salts, was proposed. As well the possibility of Marcus theory application to describe the kinetics of such polymerization, photoinitiated via electron transfer process, has been presented. It required the determination of the value of free energy of activation of electron transfer process ( $\Delta G_{et}$ ) using Rehm-Weller equation. Using cyclic voltammetry the reduction potentials of the dyes and oxidation potentials of borate salts were determined. Parabolic dependence between polymerization rate ( $R_p$ ) and  $\Delta G_{et}$  value has been obtained for all the salts tested. The lifetimes of excited singlet state of cyanine dye with and without quenching were determined and let calculate the rate consts. of primary process of polymerization investigated, i.e. electron transfer from borate anion to excited state of the dye ( $k_{et}$ ). According to the Scheme A, the effect of competitive process, i.e. cyanine and Bu radicals recombination on the photoinitiated polymerization rate was also determined. This process, which does not influence  $R_p$  value, leads to the dye bleaching what strongly depends on the structure of both dye cation and borate anion. Initiation rate of polymerization depends on the photoinitiator concentration and  $R_p$  value - on the coinitiator concentration

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423766-13-6 423766-15-8 423766-16-9  
423766-17-0 423766-18-1 423766-19-2  
423766-20-5 423766-36-3 423766-37-4  
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(electron transfer theory in free radical  
polymerization of trimethylolpropane triacrylate  
photoinitiated by cyanine borate salts)

RN 209456-61-1 HCAPLUS

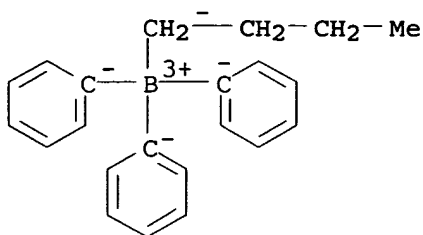
CN Benzoxazolium, 3-ethyl-2-[2-[(3-ethyl-5-phenyl-2(3H)-  
benzoxazolylidene)methyl]-1-butenyl]-5-phenyl-,  
(T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

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CRN 47252-39-1

CMF C22 H24 B

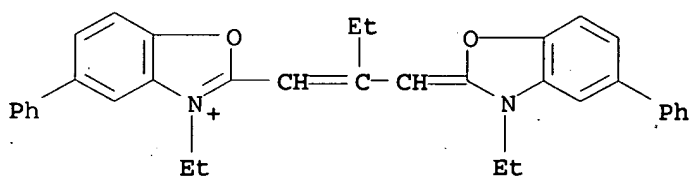
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CM 2

CRN 17694-05-2

CMF C35 H33 N2 O2



RN 209456-65-5 HCAPLUS

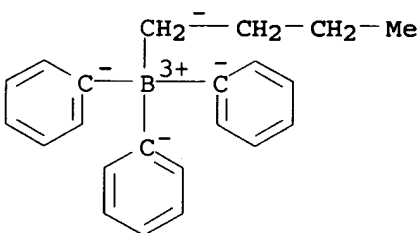
CM Benzoxazolium, 3-ethyl-2-[2-[(3-ethyl-5-methoxy-2(3H)-benzoxazolylidene)methyl]-1-butenyl]-5-methoxy-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 47252-39-1

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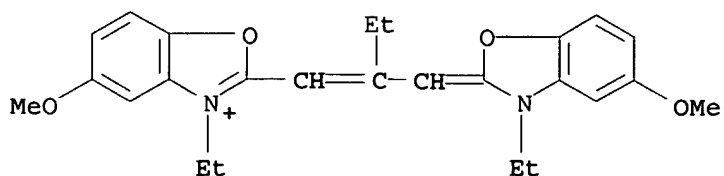
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CM 2

CRN 42986-11-8

CMF C25 H29 N2 O4



RN 211676-25-4 HCAPLUS

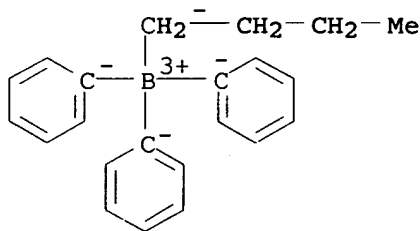
CN Benzothiazolium, 3-ethyl-2-[2-[(3-ethyl-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 47252-39-1

CMF C22 H24 B

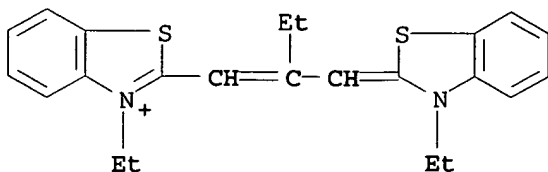
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CM 2

CRN 35077-88-4

CMF C23 H25 N2 S2



RN 423766-13-6 HCAPLUS

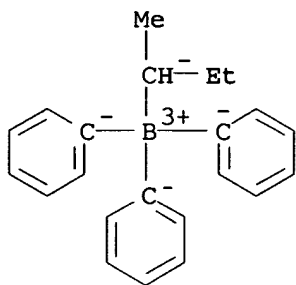
CN Benzoxazolium, 3-ethyl-2-[2-[(3-ethyl-5-methoxy-2(3H)-benzoxazolylidene)methyl]-1-butenyl]-5-methoxy-, (T-4)-(1-methylpropyl)triphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 135539-45-6

CMF C22 H24 B

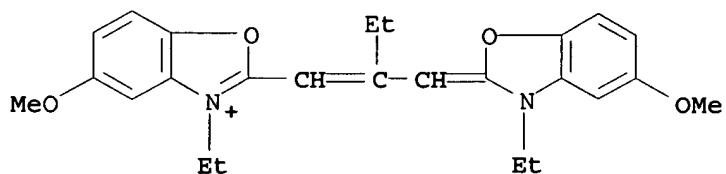
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CM 2

CRN 42986-11-8

CMF C25 H29 N2 O4



RN 423766-15-8 HCAPLUS

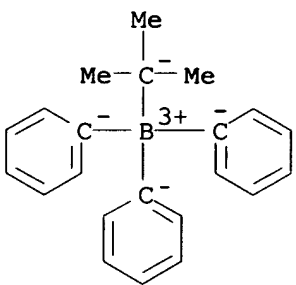
CN Benzoxazolium, 3-ethyl-2-[2-[(3-ethyl-5-methoxy-2(3H)-benzoxazolylidene)methyl]-1-butenyl]-5-methoxy-, (T-4)-(1,1-dimethylethyl)triphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 160016-02-4

CMF C22 H24 B

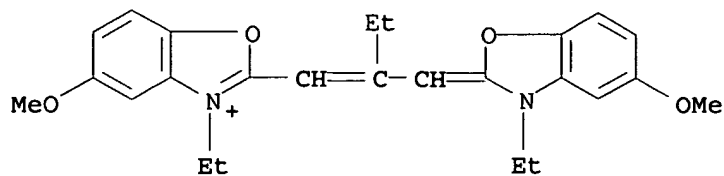
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CM 2

CRN 42986-11-8

CMF C25 H29 N2 O4



RN 423766-16-9 HCAPLUS

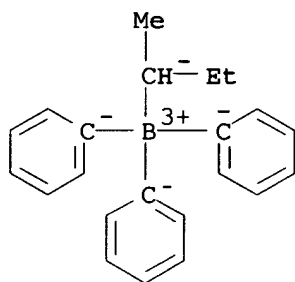
CN Benzoxazolium, 3-ethyl-2-[2-[(3-ethyl-5-phenyl-2(3H)-benzoxazolylidene)methyl]-1-butenyl]-5-phenyl-, (T-4)-(1-methylpropyl)triphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 135539-45-6

CMF C22 H24 B

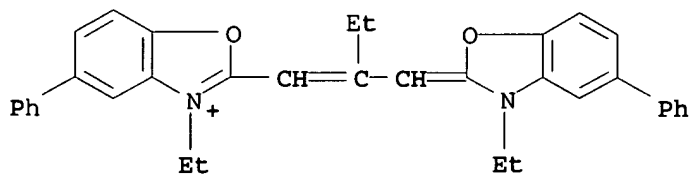
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CM 2

CRN 17694-05-2

CMF C35 H33 N2 O2



RN 423766-17-0 HCAPLUS

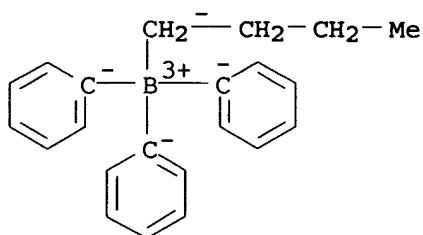
CN Benzoxazolium, 3-ethyl-2-[2-[(3-ethyl-2(3H)-benzoxazolylidene)methyl]-1-butenyl]-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 47252-39-1

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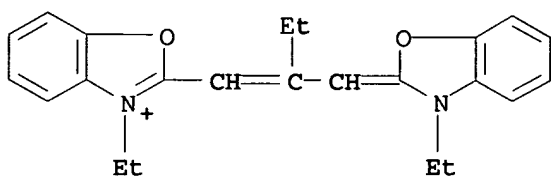
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CM 2

CRN 39039-90-2

CMF C23 H25 N2 O2



RN 423766-18-1 HCAPLUS

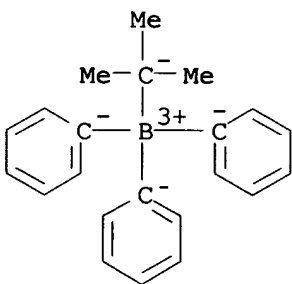
CN Benzoxazolium, 3-ethyl-2-[2-[(3-ethyl-5-phenyl-2(3H)-benzoxazolylidene)methyl]-1-butenyl]-5-phenyl-, (T-4)-(1,1-dimethylethyl)triphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 160016-02-4

CMF C22 H24 B

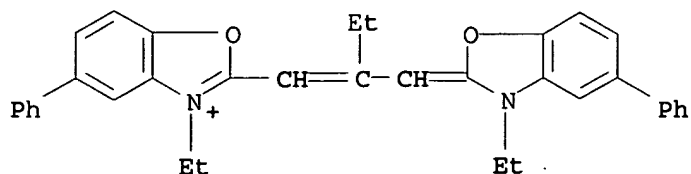
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CM 2

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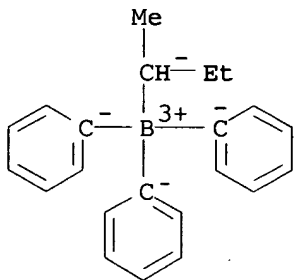
RN 423766-19-2 HCAPLUS  
 CN Benzoxazolium, 3-ethyl-2-[2-[(3-ethyl-2(3H)-benzoxazolylidene)methyl]-1-butenyl]-, (T-4)-(1-methylpropyl)triphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 135539-45-6

CMF C22 H24 B

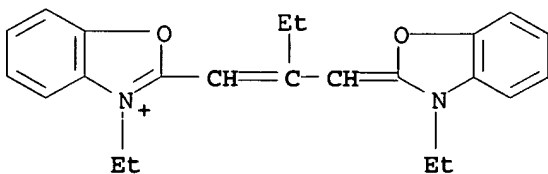
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CM 2

CRN 39039-90-2

CMF C23 H25 N2 O2



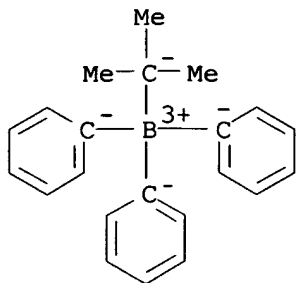
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CM 1

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CMF C22 H24 B

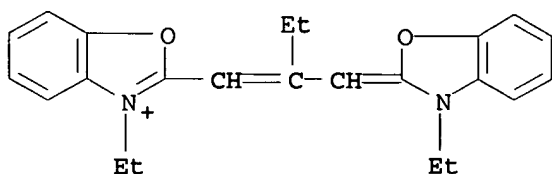
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CM 2

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CMF C23 H25 N2 O2



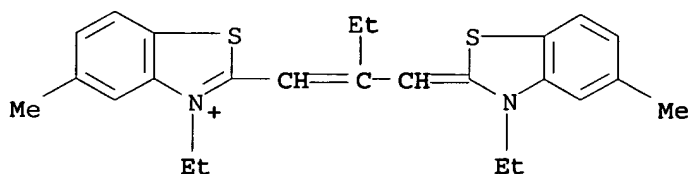
RN 423766-36-3 HCAPLUS

CN Benzothiazolium, 3-ethyl-2-[2-[(3-ethyl-5-methyl-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-5-methyl-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 48221-96-1

CMF C25 H29 N2 S2

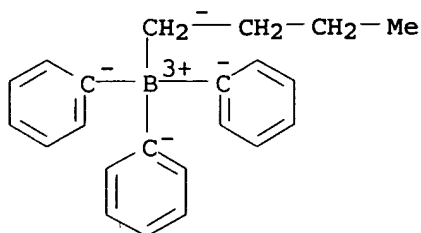


CM 2

CRN 47252-39-1

CMF C22 H24 B

CCI CCS



RN 423766-37-4 HCAPLUS

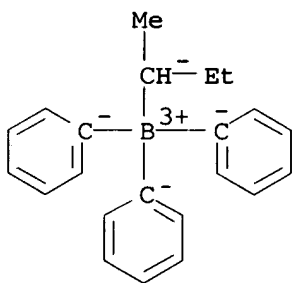
CN Benzothiazolium, 3-ethyl-2-[2-[(3-ethyl-5-methyl-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-5-methyl-, (T-4)-(1-methylpropyl)triphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 135539-45-6

CMF C22 H24 B

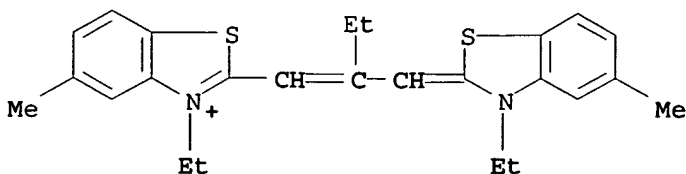
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CM 2

CRN 48221-96-1

CMF C25 H29 N2 S2



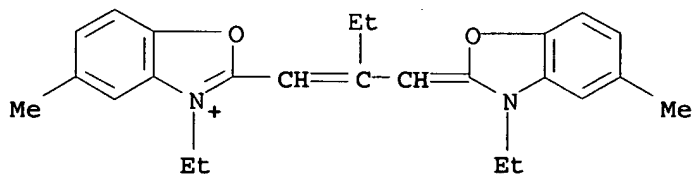
RN 423766-39-6 HCAPLUS

CN Benzoxazolium, 3-ethyl-2-[2-[(3-ethyl-5-methyl-2(3H)-benzoxazolylidene)methyl]-1-butenyl]-5-methyl-, (T-4)-(1,1-dimethylethyl)triphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 423766-38-5

CMF C25 H29 N2 O2

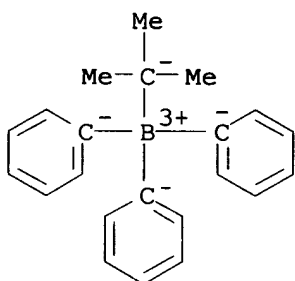


CM 2

CRN 160016-02-4

CMF C22 H24 B

CCI CCS



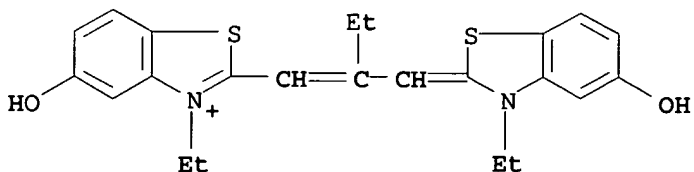
RN 423766-41-0 HCAPLUS

CN Benzothiazolium, 3-ethyl-2-[2-[(3-ethyl-5-hydroxy-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-5-hydroxy-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 423766-40-9

CMF C23 H25 N2 O2 S2

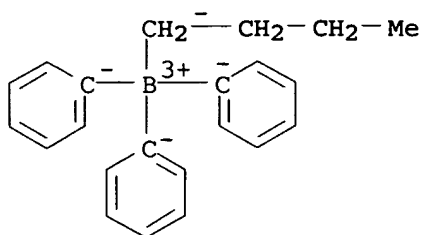


CM 2

CRN 47252-39-1

CMF C22 H24 B

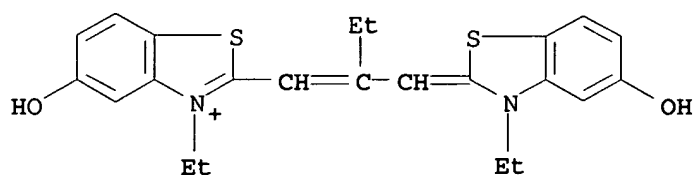
CCI CCS



RN 423766-42-1 HCAPLUS  
 CN Benzothiazolium, 3-ethyl-2-[2-[(3-ethyl-5-hydroxy-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-5-hydroxy-, (T-4)-(1-methylpropyl)triphenylborate(1-) (9CI) (CA INDEX NAME)

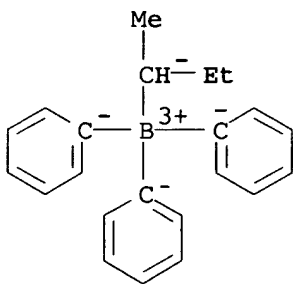
CM 1

CRN 423766-40-9  
 CMF C23 H25 N2 O2 S2



CM 2

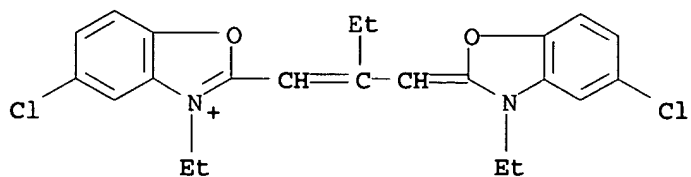
CRN 135539-45-6  
 CMF C22 H24 B  
 CCI CCS



RN 660815-15-6 HCAPLUS  
 CN Benzoxazolium, 5-chloro-2-[2-[(5-chloro-3-ethyl-2(3H)-benzoxazolylidene)methyl]-1-butenyl]-3-ethyl-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 52963-38-9  
 CMF C23 H23 Cl2 N2 O2

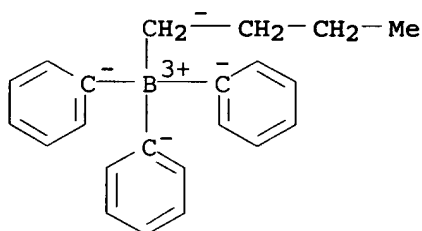


CM 2

CRN 47252-39-1

CMF C22 H24 B

CCI CCS



RN 660815-16-7 HCAPLUS

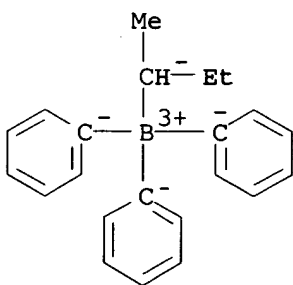
CN Benzoxazolium, 5-chloro-2-[2-[(5-chloro-3-ethyl-2(3H)-benzoxazolylidene)methyl]-1-butenyl]-3-ethyl-, (T-4)-(1-methylpropyl)triphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 135539-45-6

CMF C22 H24 B

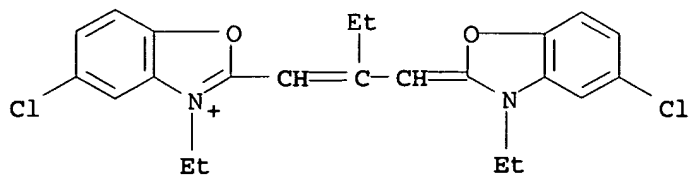
CCI CCS



CM 2

CRN 52963-38-9

CMF C23 H23 Cl2 N2 O2



RN 660815-17-8 HCAPLUS

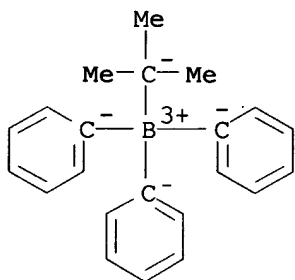
CN Benzoxazolium, 5-chloro-2-[2-[(5-chloro-3-ethyl-2(3H)-benzoxazolylidene)methyl]-1-butenyl]-3-ethyl-, (T-4)-(1,1-dimethylethyl)triphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 160016-02-4

CMF C22 H24 B

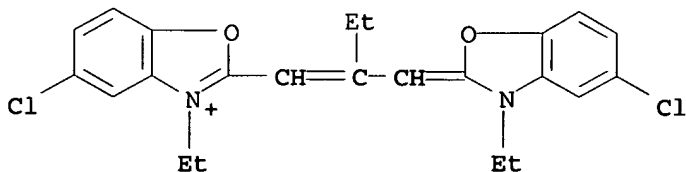
CCI CCS



CM 2

CRN 52963-38-9

CMF C23 H23 Cl2 N2 O2



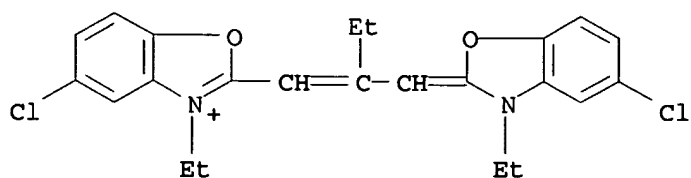
RN 660815-18-9 HCAPLUS

CN Benzoxazolium, 5-chloro-2-[2-[(5-chloro-3-ethyl-2(3H)-benzoxazolylidene)methyl]-1-butenyl]-3-ethyl-, tetrabutylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 52963-38-9

CMF C23 H23 Cl2 N2 O2

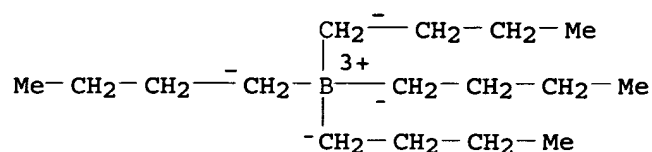


CM 2

CRN 24651-47-6

CMF C16 H36 B

CCI CCS



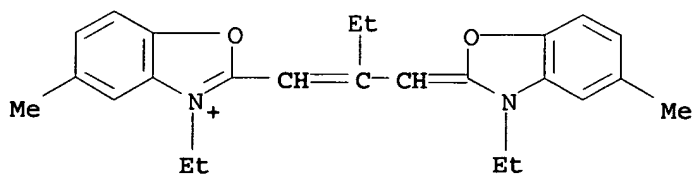
RN 660815-25-8 HCAPLUS

CN Benzoxazolium, 3-ethyl-2-[2-[(3-ethyl-5-methyl-2(3H)-benzoxazolylidene)methyl]-1-butenyl]-5-methyl-,  
(T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 423766-38-5

CMF C25 H29 N2 O2

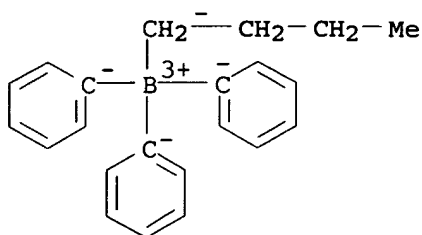


CM 2

CRN 47252-39-1

CMF C22 H24 B

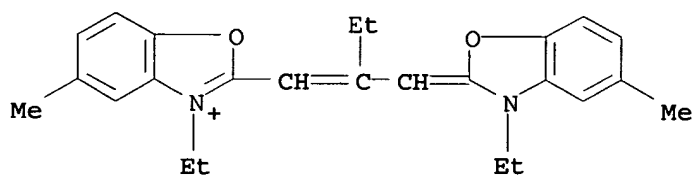
CCI CCS



RN 660815-26-9 HCAPLUS  
 CN Benzoxazolium, 3-ethyl-2-[2-[(3-ethyl-5-methyl-2(3H)-  
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 (T-4)-(1-methylpropyl)triphenylborate(1-) (9CI) (CA INDEX NAME)

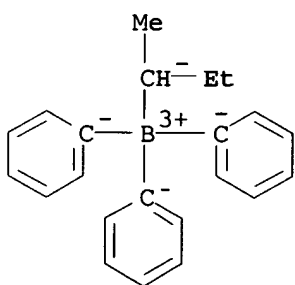
CM 1

CRN 423766-38-5  
 CMF C25 H29 N2 O2



CM 2

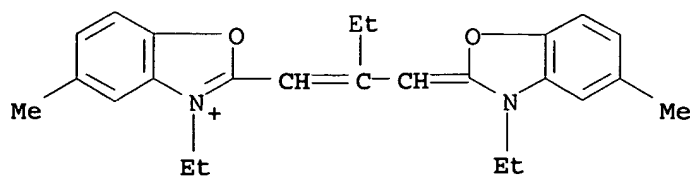
CRN 135539-45-6  
 CMF C22 H24 B  
 CCI CCS



RN 660815-27-0 HCAPLUS  
 CN Benzoxazolium, 3-ethyl-2-[2-[(3-ethyl-5-methyl-2(3H)-  
 benzoxazolylidene)methyl]-1-butenyl]-5-methyl-,  
 tetrabutylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 423766-38-5  
 CMF C25 H29 N2 O2

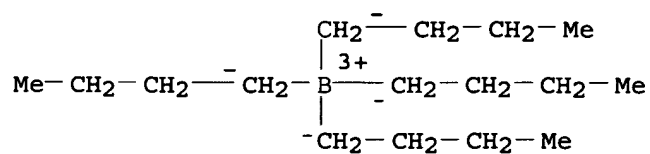


CM 2

CRN 24651-47-6

CMF C16 H36 B

CCI CCS



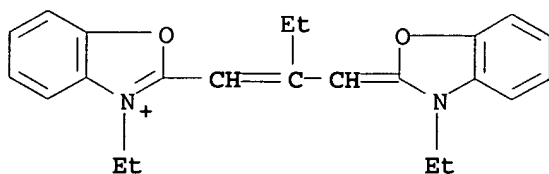
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CN Benzoxazolium, 3-ethyl-2-[2-[(3-ethyl-2(3H)-benzoxazolylidene)methyl]-1-butenyl]-, tetrabutylborate(1-) (9CI)  
(CA INDEX NAME)

CM 1

CRN 39039-90-2

CMF C23 H25 N2 O2

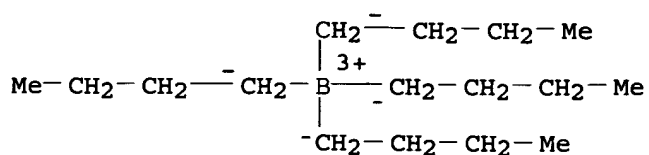


CM 2

CRN 24651-47-6

CMF C16 H36 B

CCI CCS



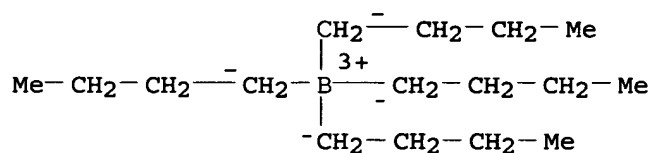
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 CN Benzoxazolium, 3-ethyl-2-[2-[(3-ethyl-5-phenyl-2(3H)-  
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 tetrabutylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 24651-47-6

CMF C16 H36 B

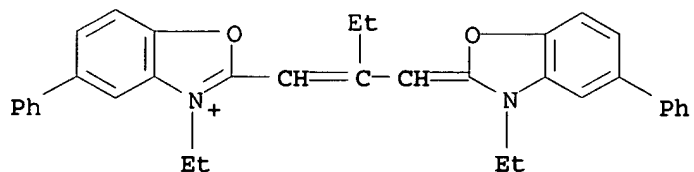
CCI CCS



CM 2

CRN 17694-05-2

CMF C35 H33 N2 O2

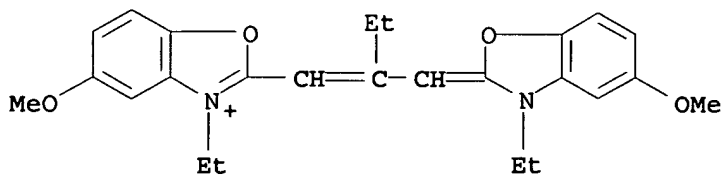


RN 660815-34-9 HCAPLUS  
 CN Benzoxazolium, 3-ethyl-2-[2-[(3-ethyl-5-methoxy-2(3H)-  
 benzoxazolylidene)methyl]-1-butenyl]-5-methoxy-,  
 tetrabutylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 42986-11-8

CMF C25 H29 N2 O4

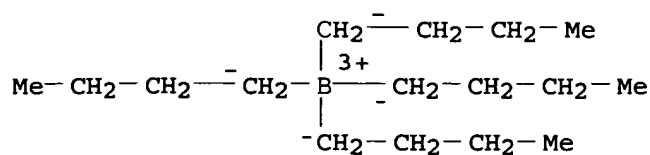


CM 2

CRN 24651-47-6

CMF C16 H36 B

CCI CCS



RN 660815-41-8 HCAPLUS

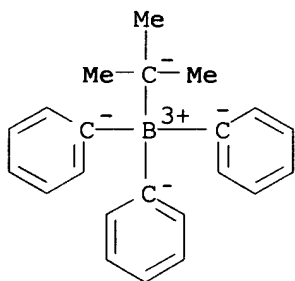
CN Benzothiazolium, 3-ethyl-2-[2-[(3-ethyl-5-methyl-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-5-methyl-, (T-4)-(1,1-dimethylethyl)triphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 160016-02-4

CMF C22 H24 B

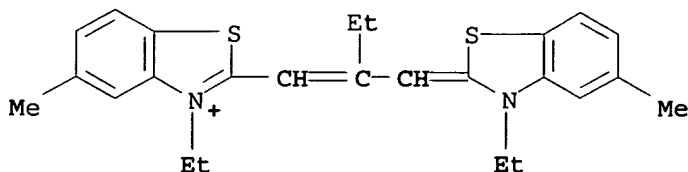
CCI CCS



CM 2

CRN 48221-96-1

CMF C25 H29 N2 S2



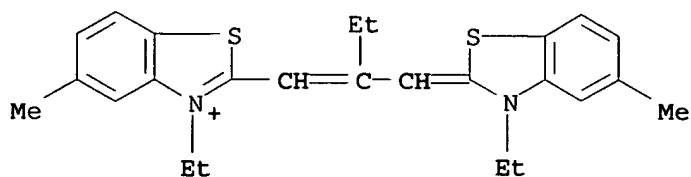
RN 660815-42-9 HCAPLUS

CN Benzothiazolium, 3-ethyl-2-[2-[(3-ethyl-5-methyl-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-5-methyl-, tetraethylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 48221-96-1

CMF C25 H29 N2 S2

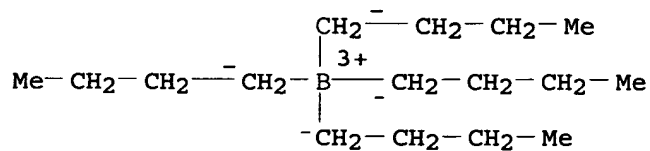


CM 2

CRN 24651-47-6

CMF C16 H36 B

CCI CCS



RN 660815-43-0 HCAPLUS

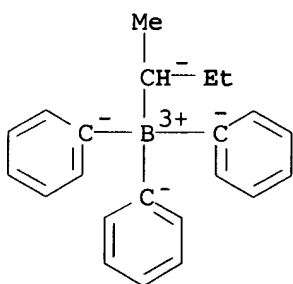
CN Benzothiazolium, 3-ethyl-2-[2-[(3-ethyl-2(3H)-  
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methylpropyl)triphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 135539-45-6

CMF C22 H24 B

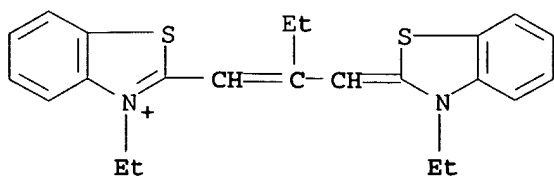
CCI CCS



CM 2

CRN 35077-88-4

CMF C23 H25 N2 S2



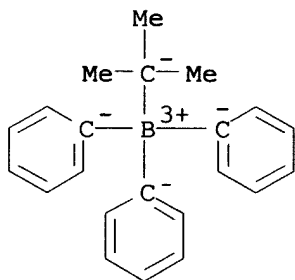
RN 660815-44-1 HCAPLUS  
 CN Benzothiazolium, 3-ethyl-2-[2-[(3-ethyl-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-, (T-4)-(1,1-dimethylethyl)triphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 160016-02-4

CMF C22 H24 B

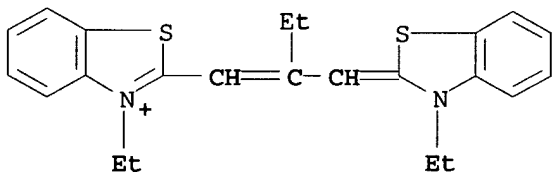
CCI CCS



CM 2

CRN 35077-88-4

CMF C23 H25 N2 S2

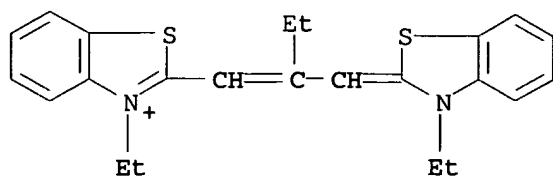


RN 660815-45-2 HCAPLUS  
 CN Benzothiazolium, 3-ethyl-2-[2-[(3-ethyl-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-, tetrabutylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 35077-88-4

CMF C23 H25 N2 S2

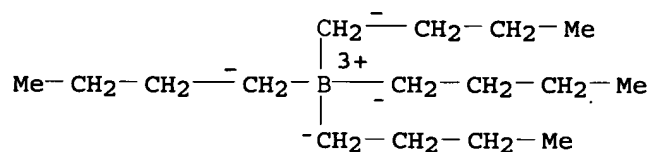


CM 2

CRN 24651-47-6

CMF C16 H36 B

CCI CCS



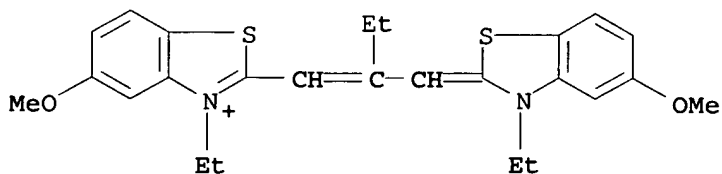
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CN Benzothiazolium, 3-ethyl-2-[2-[(3-ethyl-5-methoxy-2(3H)-  
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(T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 52812-18-7

CMF C25 H29 N2 O2 S2

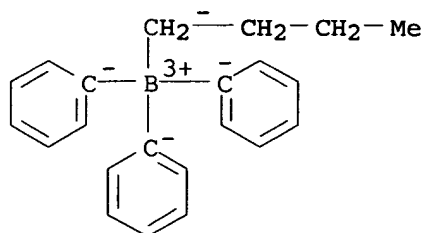


CM 2

CRN 47252-39-1

CMF C22 H24 B

CCI CCS



RN 660815-48-5 HCAPLUS

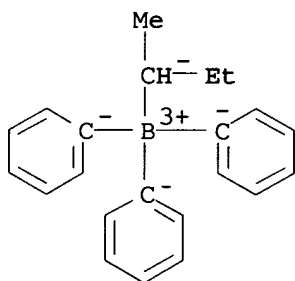
CN Benzothiazolium, 3-ethyl-2-[2-[(3-ethyl-5-methoxy-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-5-methoxy-, (T-4)-(1-methylpropyl)triphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 135539-45-6

CMF C22 H24 B

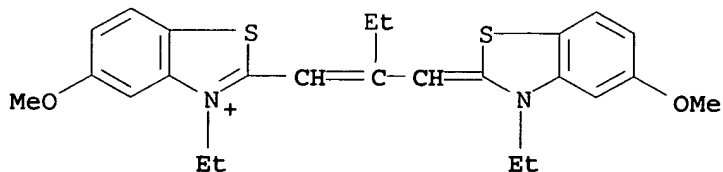
CCI CCS



CM 2

CRN 52812-18-7

CMF C25 H29 N2 O2 S2



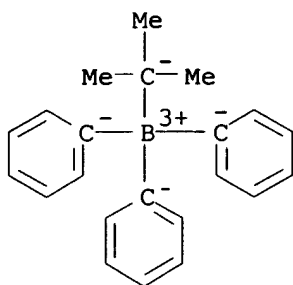
RN 660815-49-6 HCAPLUS

CN Benzothiazolium, 3-ethyl-2-[2-[(3-ethyl-5-methoxy-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-5-methoxy-, (T-4)-(1,1-dimethylethyl)triphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

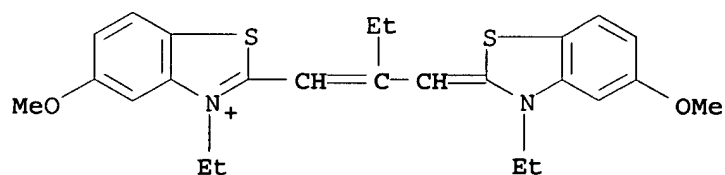
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CM 2

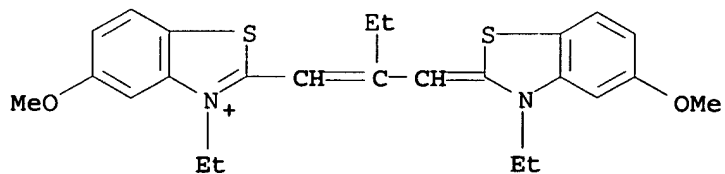
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CMF C25 H29 N2 O2 S2



RN 660815-50-9 HCAPLUS  
CN Benzothiazolium, 3-ethyl-2-[2-[(3-ethyl-5-methoxy-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-5-methoxy-, tetrabutylborate(1-) (9CI) (CA INDEX NAME)

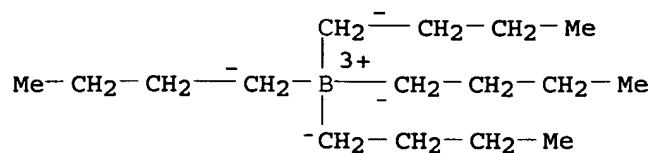
CM 1

CRN 52812-18-7  
CMF C25 H29 N2 O2 S2



CM 2

CRN 24651-47-6  
CMF C16 H36 B  
CCI CCS



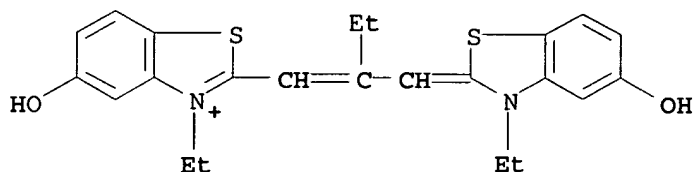
RN 660815-58-7 HCAPLUS

CN Benzothiazolium, 3-ethyl-2-[2-[(3-ethyl-5-hydroxy-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-5-hydroxy-, (T-4)-(1,1-dimethylethyl)triphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 423766-40-9

CMF C23 H25 N2 O2 S2

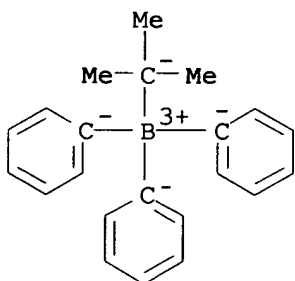


CM 2

CRN 160016-02-4

CMF C22 H24 B

CCI CCS



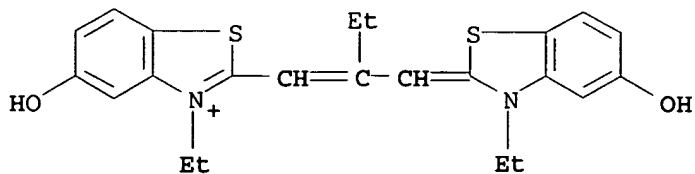
RN 660815-59-8 HCAPLUS

CN Benzothiazolium, 3-ethyl-2-[2-[(3-ethyl-5-hydroxy-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-5-hydroxy-, tetraethylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 423766-40-9

CMF C23 H25 N2 O2 S2

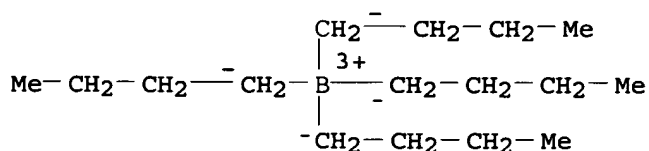


CM 2

CRN 24651-47-6

CMF C16 H36 B

CCI CCS



CC 35-3 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 41

ST cyanine dye borate initiated trimethylolpropane triacrylate  
polymn kinetics; electron transfer theory cyanine dye  
borate initiated polymn kinetics

IT Cyanine dyes

Electron transfer

Electron transfer kinetics

Free energy of activation

(electron transfer theory in free radical

polymerization of trimethylolpropane triacrylate

photoinitiated by cyanine borate salts)

IT Polymerization kinetics

(photochem., radical; electron transfer theory in

free radical polymerization of trimethylolpropane

triacrylate photoinitiated by cyanine borate salts)

IT 99635-76-4 99635-77-5 141563-95-3 179128-47-3 209456-58-6

209456-60-0 209456-61-1 209456-64-4

209456-65-5 209456-67-7 209456-70-2 209456-74-6

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423766-45-4 423766-46-5 423766-50-1 423766-51-2

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660815-16-7 660815-17-8 660815-18-9

660815-19-0 660815-21-4 660815-22-5 660815-23-6

660815-24-7 660815-25-8 660815-26-9

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 660815-30-5 660815-31-6 660815-32-7  
 660815-33-8 660815-34-9 660815-35-0  
 660815-36-1 660815-37-2 660815-38-3 660815-39-4  
 660815-40-7 660815-41-8 660815-42-9  
 660815-43-0 660815-44-1 660815-45-2  
 660815-46-3 660815-47-4 660815-48-5  
 660815-49-6 660815-50-9 660815-51-0  
 660815-52-1 660815-53-2 660815-54-3 660815-55-4  
 660815-56-5 660815-57-6 660815-58-7  
 660815-59-8 660815-60-1 660815-61-2 660815-62-3  
 660815-63-4 660815-64-5 660815-65-6

(electron transfer theory in free radical  
 polymerization of trimethylolpropane triacrylate  
 photoinitiated by cyanine borate salts)

IT 15625-89-5, Trimethylolpropane triacrylate  
 (electron transfer theory in free radical  
 polymerization of trimethylolpropane triacrylate  
 photoinitiated by cyanine borate salts)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE  
 FOR THIS RECORD. ALL CITATIONS AVAILABLE  
 IN THE RE FORMAT

L36 ANSWER 14 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:432983 HCAPLUS

DOCUMENT NUMBER: 139:14994

TITLE: Heat-sensitive **composition** and  
 lithographic original plate containing  
 it

INVENTOR(S): Shimada, Kazuto; Kunita, Kazuto; Sorori,  
 Tadahiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 36 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003162048	A2	<u>20030606</u>	JP 2001-360374	2001 1127

PRIORITY APPLN. INFO.: JP 2001-360374

2001  
1127

AB The **composition** contains (A) a radical  
**generating** compound with decomposition temperature 140-270° and  
 mol. weight  $\geq 350$  and (B) a compound whose chemical or phys.  
 property irreversibly changes by the radical. The heat-mode  
 lithog. original plate comprises a support coated with a  
 recording layer containing (A), (B') a compound with  
**polymerizable** unsatd. group, (C) a light-to-heat  
 converting agent, and (D) a binder polymer. The **composition**  
 changes its property irreversibly by heating, and the plate shows  
 high sensitivity and storage stability.

IT 182749-66-2 534570-57-5

(IR absorbent; heat-mode lithog. plate containing  
radical generator and polymerizable  
compound)

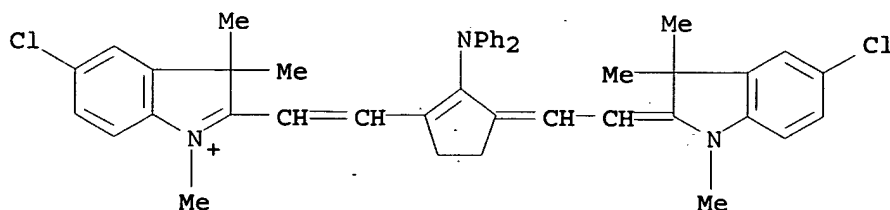
RN 182749-66-2 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 110992-86-4

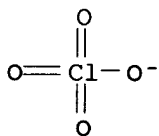
CMF C43 H42 Cl2 N3



CM 2

CRN 14797-73-0

CMF Cl O4



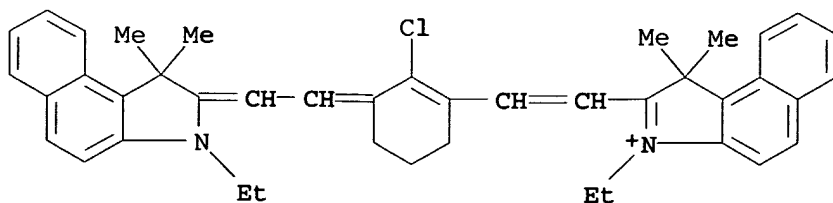
RN 534570-57-5 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(3-ethyl-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-3-ethyl-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 193687-62-6

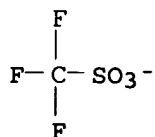
CMF C42 H44 Cl N2



CM 2

CRN 37181-39-8

CMF C F3 O3 S



IC ICM G03F007-00  
ICS G03F007-004; G03F007-029

CC 74-6 (Radiation Chemistry, Photochemistry, and  
**Photographic and Other Reprographic Processes**)  
Section cross-reference(s): 38

ST heat mode lithog plate; **radical  
generator polymerizable** compd heat sensitive  
**compn**

IT Polyurethanes, uses  
(binder; heat-mode lithog. plate containing  
**radical generator and polymerizable  
compound**)

IT **Lithographic plates**  
(heat-mode lithog. plate containing **radical  
generator and polymerizable compound**)

IT 182749-66-2 460337-34-2 534570-57-5  
(IR absorbent; heat-mode lithog. plate containing  
**radical generator and polymerizable  
compound**)

IT 79-41-4D, Methacrylic acid, copolymers with allyl methacrylate and  
isopropylamides 96-05-9D, Allyl methacrylate, copolymers with  
isopropylamides and methacrylic acid 90216-38-9, Allyl  
methacrylate-methacrylic acid copolymer 293329-29-0,  
2,2-Bis(hydroxymethyl) propionic acid-4,4'-diphenylmethane  
diisocyanate-hexamethylene diisocyanate-polypropylene glycol  
copolymer  
(binder; heat-mode lithog. plate containing  
**radical generator and polymerizable  
compound**)

IT 104222-30-2 215253-67-1 241126-79-4 287925-54-6  
359434-72-3 377780-83-1 377781-01-6 377781-17-4  
377781-24-3 534570-56-4  
(heat-mode lithog. plate containing **radical  
generator and polymerizable compound**)

IT 29570-58-9, Dipentaerythritol hexaacrylate 40220-08-4  
(heat-mode lithog. plate containing **radical  
generator and polymerizable compound**)

L36 ANSWER 15 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2003:353722 HCAPLUS  
DOCUMENT NUMBER: 138:360441  
TITLE: Presensitized negative **lithographic**  
original plates and heat-sensitive  
**radical generator**  
**compositions** therefor  
INVENTOR(S): Shimada, Kazuto; Sorori, Tadahiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 36 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003131360	A2	20030509	JP 2001-329129	2001 1026

PRIORITY APPLN. INFO.: JP 2001-329129

2001  
1026

OTHER SOURCE(S): MARPAT 138:360441

AB The plates have photothermal conversion layers containing heat-sensitive **radical generators** RSO<sub>2</sub>S-M<sup>+</sup> [R = alk(en)yl, aryl, aralkyl, alkynyl; M<sup>+</sup> = sulfonium, diazonium, iodonium, azinium], compds. which change chemical or phys. properties irreversibly upon reaction with radicals, and binder polymers.

IT 134127-48-3 442548-17-6

(photothermal converters; high-sensitive photopolymerizable compns. containing sp. onium-type **radical generators** for PS plates)

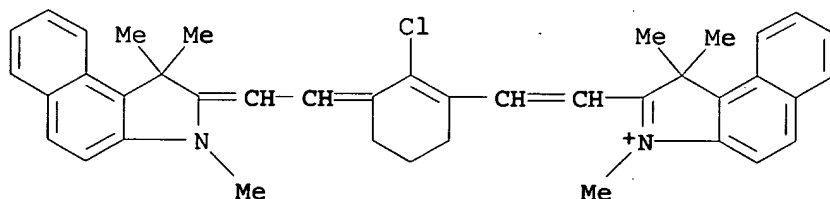
RN 134127-48-3 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 134127-47-2

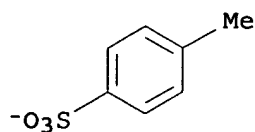
CMF C40 H40 Cl N2



CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



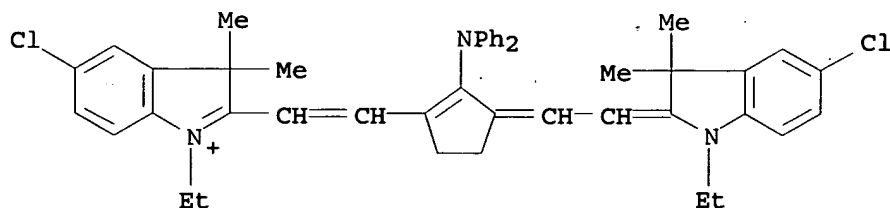
RN 442548-17-6 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1-ethyl-3,3-dimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 162717-38-6

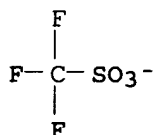
CMF C45 H46 Cl2 N3



CM 2

CRN 37181-39-8

CMF C F3 O3 S



IC ICM G03F007-00

ICS B41N001-14; G03F007-004; G03F007-028

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 38

ST presensitized lithog plate photothermal conversion layer  
sensitivity; heat mode laser platemaking PS plate sensitivity;  
iodonium sulfonium radical generator PS plate  
sensitivity

IT Polymerization catalysts

(photopolymn., heat-sensitive; high-sensitive  
photopolymerizable compns. containing sp. onium-type  
radical generators for PS plates)

IT Polyurethanes, uses

(polyoxyalkylene-, block; high-sensitive photopolymerizable  
compns. containing sp. onium-type radical

- generators for PS plates)**
- IT **Lithographic plates**  
(presensitized; high-sensitive photopolymerizable  
**compns. containing sp. onium-type radical**  
**generators for PS plates)**
- IT **Onium compounds**  
(**radical generators**; high-sensitive  
photopolymerizable **compns. containing sp. onium-type**  
**radical generators for PS plates)**
- IT 37321-70-3, AA 1050  
(anodized, substrates; high-sensitive photopolymerizable  
**compns. containing sp. onium-type radical**  
**generators for PS plates)**
- IT 822-06-0DP, Hexamethylene diisocyanate, adduct with glycerol  
dimethacrylate, polymer with allyl-containing acrylic polymers  
1830-78-0DP, adduct with HMDI, polymers with allyl-containing acrylic  
polymers 90216-38-9DP, Allyl methacrylate-methacrylic acid  
copolymer, reaction products with HMDI-glycerol dimethacrylate  
adducts 182005-17-0P, Allyl methacrylate-methacrylic  
acid-pentaerythritol tetraacrylate copolymer 227098-90-0DP,  
Allyl methacrylate-N-isopropylacrylamide-methacrylic acid  
copolymer, reaction products with HMDI-glycerol dimethacrylate  
adducts 521086-23-7P, Allyl methacrylate-N-isopropylacrylamide-  
methacrylic acid-pentaerythritol tetraacrylate copolymer  
(high-sensitive photopolymerizable **compns. containing sp.**  
**onium-type radical generators for PS**  
**plates)**
- IT 246223-87-0, 2,2-Bis(hydroxymethyl)propionic acid-hexamethylene  
diisocyanate-MDI-polypropylene glycol block copolymer  
(high-sensitive photopolymerizable **compns. containing sp.**  
**onium-type radical generators for PS**  
**plates)**
- IT 134127-48-3 351195-63-6 442548-17-6  
(photothermal converters; high-sensitive photopolymerizable  
**compns. containing sp. onium-type radical**  
**generators for PS plates)**
- IT 521086-24-8 521086-25-9 521086-27-1 521086-28-2  
521086-30-6 521086-32-8 521086-33-9 521086-35-1  
521086-37-3 521086-39-5  
(**radical generators**; high-sensitive  
photopolymerizable **compns. containing sp. onium-type**  
**radical generators for PS plates)**

L36 ANSWER 16 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2003:272162 HCAPLUS  
 DOCUMENT NUMBER: 138:311588  
 TITLE: Manufacture of IR-sensitive  
 lithographic printing plate and  
 lithographic printing master plate  
 INVENTOR(S): Okamoto, Yasuo  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2003107682

A2

20030409

JP 2001-297069

2001  
0927

PRIORITY APPLN. INFO.:

JP 2001-297069

2001  
0927

AB The process comprises forming an image-forming layer on a support containing (a) an IR absorber, (b) a radical generator, (c) a radically polymerizable compound, (d) a binder polymer, and (e) a UV polymerization initiator containing a polymerizable unsatd. group, followed by IR imagewise exposure, development, and UV overall exposure. When the overall exposure is carried out, the plate is heated to 30-150°. The overall exposure and the imagewise exposure are carried out at the same exposure level.

IT 134127-48-3

(Manufacture of IR-sensitive lithog. printing plate)

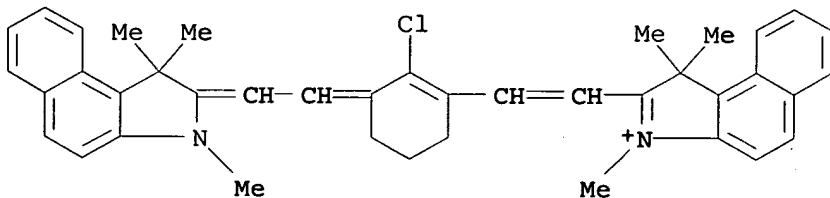
RN 134127-48-3 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1)  
(9CI) (CA INDEX NAME)

CM 1

CRN 134127-47-2

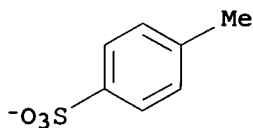
CMF C40 H40 Cl N2



CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



IC ICM G03F007-00

ICS G03F007-004; G03F007-028; G03F007-40

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

ST IR sensitive lithog printing master plate

IT **Lithographic plates**  
 (composition of image-forming layer of IR-sensitive lithog. printing plate)  
 IT Polymerization catalysts  
 (photopolymn.; Manufacture of IR-sensitive lithog. printing plate)  
 IT 67653-78-5, Dipentaerythritol hexaacrylate homopolymer  
 90216-38-9, Allyl methacrylate-methacrylic acid copolymer  
**134127-48-3**  
 (Manufacture of IR-sensitive lithog. printing plate)  
 IT 125850-75-1 212203-57-1  
 (photopolymn. initiator; Manufacture of IR-sensitive lithog. printing plate)

L36 ANSWER 17 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2003:201564 HCAPLUS  
 DOCUMENT NUMBER: 138:245631  
 TITLE: Photopolymerizable **composition**  
 INVENTOR(S): Yanaka, Hiromitsu  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 30 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1291718	A2	20030312	EP 2002-20417	2002 0911
EP 1291718	A3	20031015		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
JP 2003177527	A2	20030627	JP 2002-264220	2002 0910
US 2003129524	A1	20030710	US 2002-237707	2002 0910
US 6890701	B2	20050510		
PRIORITY APPLN. INFO.:			JP 2001-275072	A 2001 0911

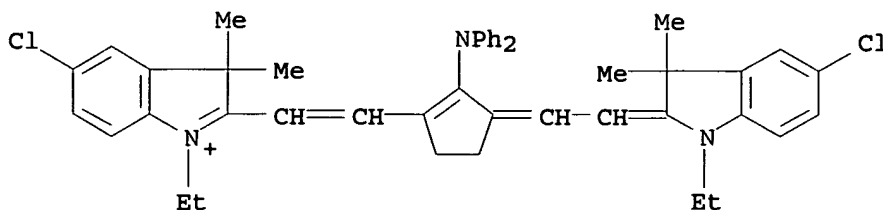
OTHER SOURCE(S): MARPAT 138:245631  
 AB The present invention relates to a photopolymerizable **composition** for neg.-working lithog. printing plate which comprises (A) a polymerizable compound having at least one **radical-polymerizable** ethylenically unsatd. double bond per mol. and a cohesive energy d. of not smaller than 500 J/cm<sup>3</sup>, (B) a **radical polymerization** initiator and (C) a binder polymer and cures when exposed to light.  
 IT 501332-52-1  
 (IR absorbent; photopolymerizable **composition** for neg.-working lithog. printing plates)  
 RN 501332-52-1 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1-ethyl-3,3-dimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 162717-38-6

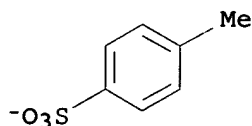
CMF C45 H46 Cl2 N3



CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



IC ICM G03F007-029

ICS B41C001-10

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 38

ST lithog printing plate photopolymerizable compn

IT Lithographic plates

(neg.-working presensitized; photopolymerizable compn . for)

IT Photoimaging materials

(photopolymerizable; photopolymerizable composition for neg.-working lithog. printing plates)

IT 385843-65-2 501332-52-1

(IR absorbent; photopolymerizable composition for neg.-working lithog. printing plates)

IT 501332-57-6P 501332-58-7P

(binder; photopolymerizable composition for neg.-working lithog. printing plates)

IT 90216-38-9, Allyl methacrylate-methacrylic acid copolymer

501347-46-2

(binder; photopolymerizable composition for neg.-working lithog. printing plates)

IT 109479-99-4 168203-58-5 501332-54-3 501332-56-5

(photopolymerizable composition for neg.-working lithog. printing plates)

IT 377780-83-1  
(polymerization initiator; photopolymerizable **composition** for  
neg.-working **lithog.** printing plates)

L36 ANSWER 18 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2002:904450 HCAPLUS  
DOCUMENT NUMBER: 138:9681  
TITLE: Developing solution **composition** and  
process for forming image using the  
**composition**  
INVENTOR(S): Itakura, Ryosuke; Aoshima, Keitaro  
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
SOURCE: Eur. Pat. Appl., 34 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1260867	A1	20021127	EP 2002-11306	2002 0522
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2002351094	A2	20021204	JP 2001-152082	2001 0522
US 2003082478	A1	20030501	US 2002-151868	2002 0522
PRIORITY APPLN. INFO.: JP 2001-152082 A				2001 0522

OTHER SOURCE(S): MARPAT 138:9681

AB The present invention relates to a developer **composition** for  
developing a **lithog.** printing plate having a neg.  
recording layer on which an image is recorded via an IR laser, the  
**composition** containing a nonionic surfactant, and a process for  
forming an image on a **lithog.** printing plate. The  
process comprises the steps of imagewise exposing a **lithog**  
. printing plate having a neg. recording layer on which an image  
is recorded via an IR ray and which contains an IR ray absorbent,  
a **radical generator** and a radically  
polymerizable compound, and then developing the **lithog.**  
printing plate with the developer **composition** containing a  
nonionic surfactant.

IT 134127-48-3

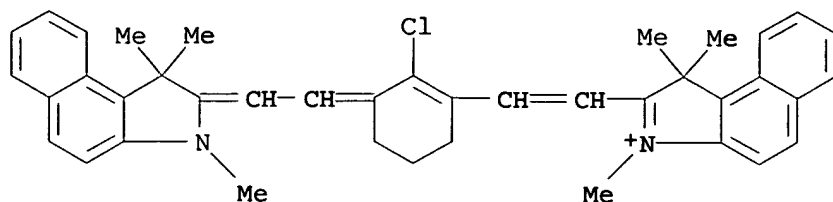
(IR absorbent; developing solution **composition** and process  
for forming image for **lithog.** printing plate containing)

RN 134127-48-3 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1,3-trimethyl-  
2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-  
1,1,3-trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1)  
(9CI) (CA INDEX NAME)

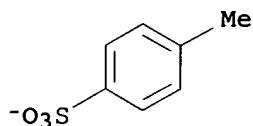
CM 1

CRN 134127-47-2  
CMF C40 H40 Cl N2



CM 2

CRN 16722-51-3  
CMF C7 H7 O3 S



- IC ICM G03F007-32  
ICS B41C001-10
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST lithog printing plate developer nonionic surfactant
- IT Optical materials  
(IR absorbers; developing solution **composition** and process for forming image for lithog. printing plate containing)
- IT IR materials  
(absorbers; developing solution **composition** and process for forming image for lithog. printing plate containing)
- IT Lithographic plates  
(developing solution **composition** and process for forming image for)
- IT Fatty acids, uses  
(esters, with sorbitan, ethoxylated, nonionic surfactant; developing solution **composition** and process for forming image for lithog. printing plate containing)
- IT Polyoxyalkylenes, uses  
(nonionic surfactant; developing solution **composition** and process for forming image for lithog. printing plate containing)
- IT Surfactants  
(nonionic; developing solution **composition** and process for forming image for lithog. printing plate containing)
- IT 134127-48-3  
(IR absorbent; developing solution **composition** and process for forming image for lithog. printing plate containing)
- IT 9003-11-6, Ethylene oxide-propylene oxide copolymer 12441-09-7D,  
Sorbitan, mono fatty carboxylate, ethoxylated 15520-05-5  
25322-68-3, Polyethylene glycol 26027-38-3 27252-75-1,  
Polyethylene glycol monoethyl ether 28929-58-0 31017-83-1

31727-16-9 66988-47-4 75587-66-5 106392-12-5, Ethylene  
oxide-propylene oxide block copolymer 477309-22-1 477327-56-3  
477327-61-0

(nonionic surfactant; developing solution **composition** and  
process for forming image for **lithog.** printing plate  
containing)

IT 262612-33-9

(**radical generator**; developing solution  
**composition** and process for forming image for **lithog**  
printing plate containing)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L36 ANSWER 19 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:566563 HCAPLUS

DOCUMENT NUMBER: 137:132135

TITLE: Photopolymerization **composition**  
containing banding-preventing agent for  
light-sensitive **lithographic**  
printing precursor, and method for image  
formation therefor

INVENTOR(S): Okamoto, Hideaki

PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002214776	A2	20020731	JP 2001-347523	2001 1113

PRIORITY APPLN. INFO.: JP 2000-346085 A 2000  
1114

AB The title **composition** contains ethylenic monomers, a  
photosensitizer dye absorbing 650-1,300 nm light, a  
**radical generator**, and a banding-preventing  
agent absorbing 650-1,300 nm light, wherein the photosensitizer  
has 90-110 % based on the amount (Wmax) providing maximum sensitizing  
and wherein the total amount of the photosensitizer and the  
banding-preventing agent is 110-1,000 % based on Wmax. The  
**composition** generates little banding due to leaked laser beam.

IT 193687-63-7

(banding-preventing agent in photopolymn. **composition**)

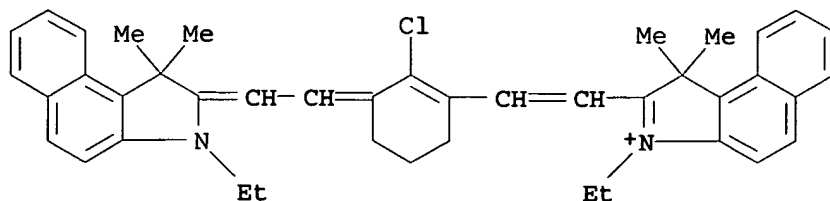
RN 193687-63-7 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(3-ethyl-1,3-dihydro-1,1-  
dimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-  
yl]ethenyl]-3-ethyl-1,1-dimethyl-, tetrafluoroborate(1-) (9CI)  
(CA INDEX NAME)

CM 1

CRN 193687-62-6

CMF C42 H44 Cl N2

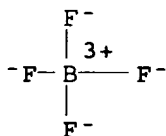


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IC ICM G03F007-004  
ICS G03F007-004; G03F007-00  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)  
ST photopolymer **compn** banding light sensitive **lithog**  
printing precursor  
IT Light-sensitive materials  
Lithographic plates  
Photosensitizers, pharmaceutical  
(photopolymer. **composition** containing banding-preventing agent  
for light-sensitive **lithog.** printing precursor, and  
method for image formation therefor)  
IT 193687-63-7  
(banding-preventing agent in photopolymer. **composition**)  
IT 425380-40-1  
(photosensitizer in photopolymer. **composition**)

L36 ANSWER 20 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:538432 HCAPLUS

DOCUMENT NUMBER: 137:101449

TITLE: Photopolymerizable **compositions** for  
near IR laser exposure and  
**lithographic** plates using them with  
excellent sensitivity and storage stability  
INVENTOR(S): Tsurutani, Yasuyuki; Toshimitsu, Eriko  
PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002202592	A2	20020719	JP 2001-75248	2001 0316

PRIORITY APPLN. INFO.:

JP 2000-324902

A

2000  
1025

OTHER SOURCE(S): MARPAT 137:101449

AB The **compns.** contain ethylenic monomers, photopolymn. initiators (consisting of sensitizing dyes and **radical generators**, preferably) **generating radicals** by light with wavelength 600-1300 nm, and amine compds. having atomic groups NCH<sub>2</sub>.

IT 328063-81-6

(sensitizing dye; amine-containing photopolymerizable **compns.** for lithog. plates with good near IR laser sensitivity and storage stability)

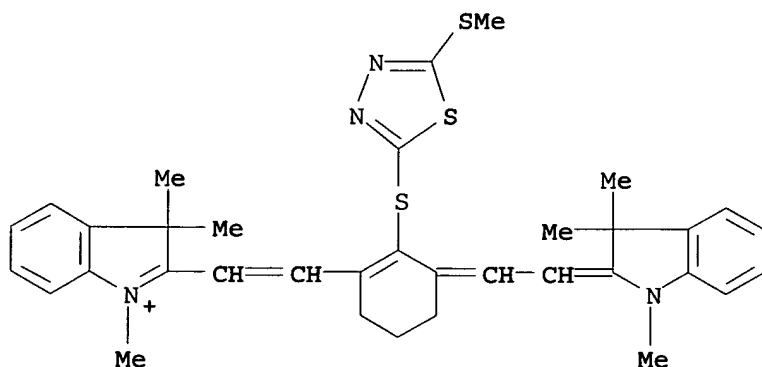
RN 328063-81-6 HCAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-[[5-(methylthio)-1,3,4-thiadiazol-2-yl]thio]-1-cyclohexen-1-yl]ethenyl]-1,3,3-trimethyl-, perchlorate (9CI)  
(CA INDEX NAME)

CM 1

CRN 328063-80-5

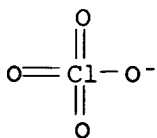
CMF C35 H39 N4 S3



CM 2

CRN 14797-73-0

CMF C1 O4



IC ICM G03F007-004  
ICS G03F007-004; B41N001-14; G03F007-00; G03F007-029

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST near IR laser exposure photopolymerizable **compn lithog**; **lithog** printing plate storage stability  
benzylamine; phthalocyanine sensitizer **radical generator** photopolymn sensitivity

IT Lithographic plates  
Photoimaging materials  
(amine-containing photopolymerizable **compns.** for **lithog.** plates with good near IR laser sensitivity and storage stability)

IT Amines, uses  
(amine-containing photopolymerizable **compns.** for **lithog.** plates with good near IR laser sensitivity and storage stability)

IT Polymerization catalysts  
(photopolymn.; amine-containing photopolymerizable **compns.** for **lithog.** plates with good near IR laser sensitivity and storage stability)

IT Cyanine dyes  
(sensitizing dye; amine-containing photopolymerizable **compns.** for **lithog.** plates with good near IR laser sensitivity and storage stability)

IT 259133-57-8  
(amine-containing photopolymerizable **compns.** for **lithog.** plates with good near IR laser sensitivity and storage stability)

IT 121-44-8, Triethylamine, uses 620-40-6, Tribenzylamine  
(amine-containing photopolymerizable **compns.** for **lithog.** plates with good near IR laser sensitivity and storage stability)

IT 168112-77-4, Methacrylic acid-methyl methacrylate copolymer ester with (3,4-epoxycyclohexyl)methyl methacrylate 220171-03-9, Acrylonitrile-2-hydroxy-3-allyloxypropyl methacrylate-methacrylic acid-vinyl methacrylate copolymer  
(binder; amine-containing photopolymerizable **compns.** for **lithog.** plates with good near IR laser sensitivity and storage stability)

IT 4986-89-4 32435-46-4 77001-81-1  
(monomer; amine-containing photopolymerizable **compns.** for **lithog.** plates with good near IR laser sensitivity and storage stability)

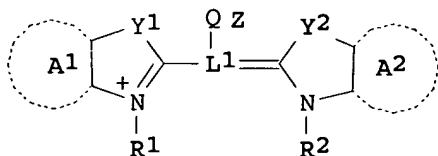
IT 290-87-9D, s-Triazine, derivs. 3584-23-4, 2-(4-Methoxyphenyl)-4,6-bis(trichloromethyl)-s-triazine 191726-43-9  
(**radical generator**; amine-containing photopolymerizable **compns.** for **lithog.** plates with good near IR laser sensitivity and storage stability)

IT 328063-81-6  
(sensitizing dye; amine-containing photopolymerizable **compns.** for **lithog.** plates with good near IR laser sensitivity and storage stability)

IT 574-93-6, Phthalocyanine  
(sensitizing dye; amine-containing photopolymerizable **compns.** for **lithog.** plates with good near IR laser sensitivity and storage stability)

L36 ANSWER 21 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2002:503933 HCAPLUS  
DOCUMENT NUMBER: 137:85964  
TITLE: Photopolymerizable **compositions**  
containing cyanine compounds as sensitizers  
and **lithographic** plates using them  
INVENTOR(S): Urano, Toshiyoshi  
PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2002189291	A2	20020705	JP 2000-390192	2000 1222
PRIORITY APPLN. INFO.:			JP 2000-390192	2000 1222
OTHER SOURCE(S):		MARPAT 137:85964		
GI				

 $\text{Xa}^-$ 

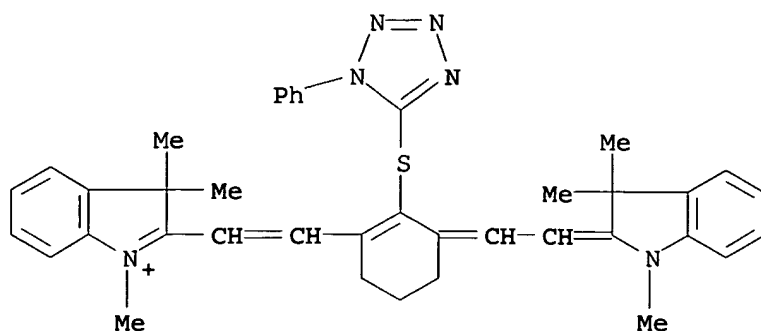
# I

AB The **compsns.** contain (A) ethylenically-unsatd. compds., (B) sensitizers I [Y1, Y2 = S, O, dialkylmethylene; A1, A2 = (un)substituted benzene ring, (un)substituted naphthalene ring; R1, R2 = (un)substituted alkyl, (un)substituted aryl, (un)substituted aralkyl; L1 = (un)substituted heptamethine; Q = O, S; Z = (un)substituted tetrazolyl; Xa- = counter anion], and (c) **photoinitiators**. The **lithog.** plate comprises a support and a layer of the **compsns.** The **compsns** . are sensitive to visible light especially near-IR and are not sensitive to UV light, so the **lithog.** plate can be handled under a white fluorescent lamp.

IT 440102-72-7  
(photopolymerizable compns. containing cyanine compds.  
having tetrazolyl group as sensitizers for near-IR-sensitive  
lithog. plates)

RN 440102-72-7 HCAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-[(1-phenyl-1H-tetrazol-5-yl)thio]-1-cyclohexen-1-yl]ethenyl]-1,3,3-trimethyl-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

- IC ICM G03F007-004  
ICS B41N001-14; C08F002-50; G03F007-00; G03F007-028; G03F007-029
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST photopolymerizable **compn** cyanine sensitizer  
presensitized **lithog** plate; tetrazolyl cyanine compd  
sensitizer presensitized **lithog** plate; near IR sensitive  
**lithog** plate cyanine dye sensitizer
- IT Cyanine dyes  
(photopolymerizable **compns.** containing cyanine compds.  
having tetrazolyl group as sensitizers for near-IR-sensitive  
**lithog.** plates)
- IT Polymerization catalysts  
(photopolymn.; photopolymerizable **compns.** containing  
cyanine compds. having tetrazolyl group as sensitizers for  
near-IR-sensitive **lithog.** plates)
- IT **Lithographic** plates  
(presensitized; photopolymerizable **compns.** containing  
cyanine compds. having tetrazolyl group as sensitizers for  
near-IR-sensitive **lithog.** plates)
- IT 26936-24-3, Methacrylic acid-methyl acrylate-methyl methacrylate  
copolymer  
(binder; photopolymerizable **compns.** containing cyanine  
compds. having tetrazolyl group as sensitizers for  
near-IR-sensitive **lithog.** plates)
- IT 3584-23-4, 2-(p-Methoxyphenyl)-4,6-bis(trichloromethyl)-s-triazine  
120307-06-4, Tetrabutylammonium butyltriphenylborate 220651-99-0  
(**photoinitiator**; photopolymerizable **compns.**  
containing cyanine compds. having tetrazolyl group as sensitizers  
for near-IR-sensitive **lithog.** plates)
- IT 440102-72-7  
(photopolymerizable **compns.** containing cyanine compds.  
having tetrazolyl group as sensitizers for near-IR-sensitive  
**lithog.** plates)
- IT 36446-02-3P, Trimethylolpropane triacrylate homopolymer  
(photopolymerizable **compns.** containing cyanine compds.  
having tetrazolyl group as sensitizers for near-IR-sensitive  
**lithog.** plates)

ACCESSION NUMBER: 2002:228647 HCAPLUS  
 DOCUMENT NUMBER: 136:270655  
 TITLE: Light- and heat-sensitive printing papers free from blistering by heat  
 INVENTOR(S): Nagata, Kozo  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002086913	A2	20020326	JP 2000-274547	2000 0911

PRIORITY APPLN. INFO.:

JP 2000-274547

2000  
0911

AB The printing paper involves a paper support coated at least on 1 side with a resin layer which is formed by curing an unsatd. organic compds. by electron beam irradiation. The light- and heat-sensitive layer of the paper contains (i) heat-responsive microcapsules of coloring components A, substantially colorless compds. B which have **polymerizable** groups and sites which reacts with A and become colored, and photopolymn. initiators or (ii) A, substantially colorless compds. C which react with A and become colored, substantially colorless compds. D which have **polymerizable** groups and sits suppressing the reaction between A and C, and photopolymn. initiators.

IT 296781-51-6

(photosensitizer, photopolymn. initiator; light- and heat-sensitive, cured resin-coated printing papers free from blistering by heat)

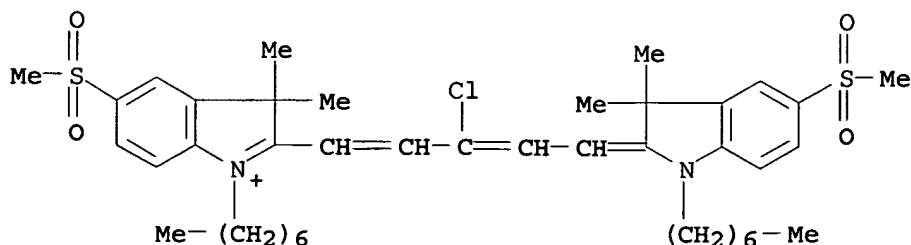
RN 296781-51-6 HCAPLUS

CN 3H-Indolium, 2-[3-chloro-5-[1-heptyl-1,3-dihydro-3,3-dimethyl-5-(methylsulfonyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-1-heptyl-3,3-dimethyl-5-(methylsulfonyl)-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 284019-21-2

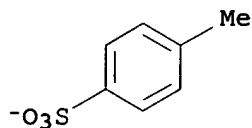
CMF C41 H58 C1 N2 O4 S2



CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



IC ICM B41M005-26  
 ICS B41M005-30; B41M005-28; G03F007-004; G03F007-027; G03F007-11  
 CC 74-7 (Radiation Chemistry, Photochemistry, and  
 Photographic and Other Reprographic Processes)  
 IT 284019-17-6 296781-51-6 352280-17-2  
 (photosensitizer, photopolymn. initiator; light- and  
 heat-sensitive, cured resin-coated printing papers free  
 from blistering by heat)

L36 ANSWER 23 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2002:101172 HCAPLUS  
 DOCUMENT NUMBER: 136:158877  
 TITLE: Heat-mode negative-working image-recording  
 material and methods of forming image  
 INVENTOR(S): Nakamura, Ippei; Sorori, Tadahiro  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002040638	A2	20020206	JP 2000-224031	2000 0725
US 2002045128	A1	20020418	US 2001-899123	2001 0706
US 6770422	B2	20040803		
CN 1334490	A	20020206	CN 2001-120322	2001 0724
EP 1176007	A2	20020130	EP 2001-117666	2001 0725
EP 1176007	A3	20040317		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRIORITY APPLN. INFO.:			JP 2000-224031	A 2000 0725

AB The invention relates to a heat-mode neg.-working image-recording material which can be directly recorded using an IR laser in a manufacture of a **lithog.** printing plate. The heat-mode neg.-working image-recording material such as a **lithog.** printing plate comprises (1) an IR absorber having an oxidation potential 0.45V (vs. SCE), (2) a thermal radical generator such as an onium salt, and (3) a radically **polymerizable** compound. The process involving the development of above recording material by an alkaline solution having  $10.5 \leq \text{pH} \leq 12.5$  is also claimed.

IT 328063-88-3

(**radical generator**; heat-mode neg.-working image-recording material from)

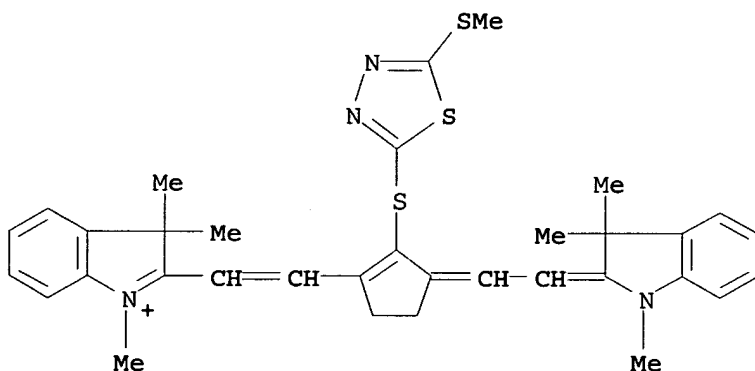
RN 328063-88-3 HCAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-[[5-(methylthio)-1,3,4-thiadiazol-2-yl]thio]-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, perchlorate (9CI)  
(CA INDEX NAME)

CM 1

CRN 328063-87-2

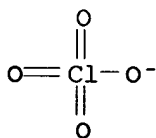
CMF C34 H37 N4 S3



CM 2

CRN 14797-73-0

CMF Cl O4



IC ICM G03F007-004

ICS B41N001-14; G03F007-00; G03F007-027; G03F007-029; G03F007-32

CC 74-6 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)

ST IR absorber onium salt radical generator; **lithog**

printing plate development; image recording material  
 IT **Lithographic plates**  
 (computer-to-plate; IR absorber and thermal radical generator  
 contained in heat-mode neg.-working image-recording material)  
 IT 25183-63-5 66003-78-9 226718-64-5 287925-54-6  
**328063-88-3**  
 (radical generator; heat-mode neg.-working  
 image-recording material from)

L36 ANSWER 24 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2002:63917 HCAPLUS  
 DOCUMENT NUMBER: 136:126607  
 TITLE: Negative-working heat-mode image recording  
 material for **lithographic** printing  
 plate  
 INVENTOR(S): Nakamura, Ippei  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2002023360	A2	20020123	JP 2000-211147	

2000  
0712

PRIORITY APPLN. INFO.: JP 2000-211147

2000  
0712

AB The neg.-working image recording material comprises (A) an IR  
 absorber having the maximum absorption wavelength 900-1,200 nm, (B) a  
 radical generator such as an onium salt, and (C) a compound  
 subjected to **radical polymerization**. This recording  
 material is used for a computer-to-plate **lithog.**  
 printing plate.

IT **155613-98-2**  
 (IR absorber; IR absorber and **radical**  
**generator** for neg.-working heat-mode image recording  
 material used for **lithog.** printing plate)

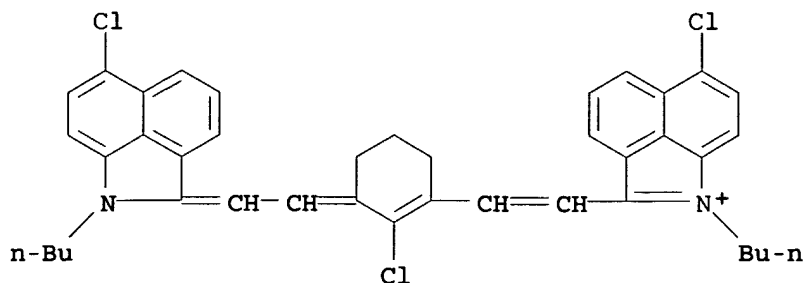
RN 155613-98-2 HCAPLUS

CN Benz[cd]indolium, 1-butyl-2-[2-[3-[(1-butyl-6-chlorobenz[cd]indol-  
 2(1H)-ylidene)ethylidene]-2-chloro-1-cyclohexen-1-yl]ethenyl]-6-  
 chloro-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 155613-97-1

CMF C40 H38 Cl3 N2

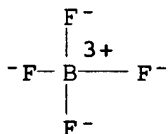


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



- IC ICM G03F007-029  
ICS C08F002-46; C08F020-10; C08F020-56; C08F022-16; G03F007-004;  
G03F007-027
- CC 74-6 (Radiation Chemistry, Photochemistry, and  
**Photographic** and Other Reprographic Processes)  
Section cross-reference(s): 38
- ST heat mode image recording material **lithog** printing plate
- IT **Lithographic** plates  
(IR absorber and radical generator for neg.-working heat-mode  
image recording material used for **lithog.** printing  
plate)
- IT Onium compounds  
(radical generator; IR absorber and radical generator for  
neg.-working heat-mode image recording material used for  
**lithog.** printing plate)
- IT 65767-27-3 **155613-98-2** 155614-01-0  
(IR absorber; IR absorber and **radical**  
**generator** for neg.-working heat-mode image recording  
material used for **lithog.** printing plate)
- IT 61358-25-6 262612-33-9 287925-54-6 390357-26-3  
(radical generator; IR absorber and radical generator for  
neg.-working heat-mode image recording material used for  
**lithog.** printing plate)

L36 ANSWER 25 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:760373 HCAPLUS

DOCUMENT NUMBER: 135:325271

TITLE: Photopolymerizable **compositions**  
containing urethane compounds, presensitized  
**lithographic** printing plates  
therefrom, and platemaking method

INVENTOR(S): Okamoto, Hideaki; Urano, Toshiyoshi; Noguchi,

PATENT ASSIGNEE(S): Motoharu  
 SOURCE: Mitsubishi Chemical Corp., Japan  
 Jpn. Kokai Tokkyo Koho, 19 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

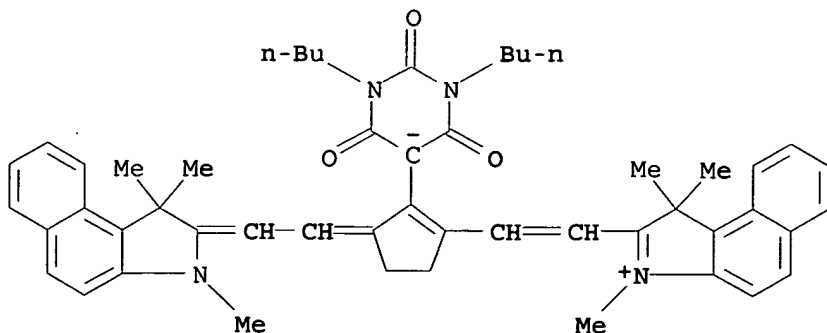
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001290267	A2	20011019	JP 2001-16536	2001 0125
PRIORITY APPLN. INFO.:			JP 2000-23993	A 2000 0201

AB The **compns.** contain ethylenic monomers (including urethane compds. having  $\geq 4$  urethane bonds and  $\geq 4$  addition-polymerizable double bonds) and photopolymer. initiator systems. Thus, a **composition** containing a reaction product of NK Ester A 9530 (dipentaerythritol pentaacrylate-based compound) and ME 20-100 (polyisocyanate) 44, 2-(methacryloyloxy)ethyl phosphate 11, a titanocene **radical generator** 5, dipyrrometheneboron difluoride-based sensitizers 1.0, and Me methacrylate-methacrylic acid-Cyclomer A 200 (alicyclic epoxy acrylate) copolymer 45 parts was applied on an anodized Al plate, exposed to a laser beam, and developed with an alkali solution to give a test piece with good resolution and durability.

IT 367965-49-9  
 (sensitizer; photopolymerizable **compns.** containing urethane compds. for photosensitive lithog. plates with good resolution and durability)

RN 367965-49-9 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-(1,3-dibutylhexahydro-2,4,6-trioxo-5-pyrimidinyl)-3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1,1,3-trimethyl-, inner salt (9CI) (CA INDEX NAME)



IC ICM G03F007-027

ICS C08F002-50; C08F299-06; G03F007-00; G03F007-004; G03F007-029; G03F007-031; G03F007-032

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and

- Other Reprographic Processes)
- ST photopolymn ethylenic polyurethane presensitized lithog plate; titanocene initiator cyanine dye sensitizer platemaking; pentaerythritol acrylate polymer laser exposure resolu
- IT Polyurethanes, preparation  
(acrylates; photopolymerizable compns. containing urethane compds. for photosensitive lithog. plates with good resolution and durability)
- IT Catalysts  
(photochem.; photopolymerizable compns. containing urethane compds. for photosensitive lithog. plates with good resolution and durability)
- IT Photoimaging materials  
(photopolymerizable compns. containing urethane compds. for photosensitive lithog. plates with good resolution and durability)
- IT Polymerization catalysts  
(photopolymn.; photopolymerizable compns. containing urethane compds. for photosensitive lithog. plates with good resolution and durability)
- IT Lithographic plates  
(presensitized; photopolymerizable compns. containing urethane compds. for photosensitive lithog. plates with good resolution and durability)
- IT Cyanine dyes  
(sensitizer; photopolymerizable compns. containing urethane compds. for photosensitive lithog. plates with good resolution and durability)
- IT 132011-04-2P, Cyclomer A 200-methacrylic acid-methyl methacrylate copolymer  
(binder; photopolymerizable compns. containing urethane compds. for photosensitive lithog. plates with good resolution and durability)
- IT 620-40-6, Tribenzylamine  
(photopolymerizable compns. containing urethane compds. for photosensitive lithog. plates with good resolution and durability)
- IT 24599-21-1, Mono[2-(methacryloyloxy)ethyl] phosphate 32435-46-4, Bis[2-(methacryloyloxy)ethyl] phosphate 56361-55-8, Bisphenol A diethylene glycol diacrylate 302778-63-8 367966-32-3  
(photopolymerizable compns. containing urethane compds. for photosensitive lithog. plates with good resolution and durability)
- IT 617-73-2DP, 2-Hydroxyoctanoic acid, reaction products with polyurethane 367966-29-8DP, reaction products with hydroxyoctanoic acid 367966-29-8P, ME 20-100-NK Ester A 9530 copolymer 367966-30-1P, ME 20-100-NK Ester 701A copolymer  
(photopolymerizable compns. containing urethane compds. for photosensitive lithog. plates with good resolution and durability)
- IT 3584-23-4 367965-47-7 367965-48-8  
(photopolymn. initiator; photopolymerizable compns. containing urethane compds. for photosensitive lithog. plates with good resolution and durability)
- IT 55799-81-0 141052-73-5 259133-57-8 367965-49-9  
(sensitizer; photopolymerizable compns. containing urethane compds. for photosensitive lithog. plates with good resolution and durability)

ACCESSION NUMBER: 2001:472141 HCAPLUS  
 DOCUMENT NUMBER: 135:68543  
 TITLE: Method for formation of negative images by  
 imagewise irradiation of infrared laser  
 INVENTOR(S): Aoshima, Keitaro  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001175006	A2	20010629	JP 1999-362335	1999 1221

PRIORITY APPLN. INFO.: JP 1999-362335  
 1999  
 1221

AB Neg. image-forming material consisting of a support having a  
 photosensitive layer containing (A) IR absorber, (B) radical  
 generator, (C) radically polymerizable compound, and (D)  
 binder polymer irradiated by imagewise exposure with IR laser,  
 1-20 s heat treatment at 60-120°, and aqueous alkaline development  
 to give neg. images. The materials are suitable for digital  
 direct printing plates.

IT 134127-48-3  
 (IR absorbing agent; formation of neg. images suitable as  
 digital direct printing plates by imagewise IR irradiation)

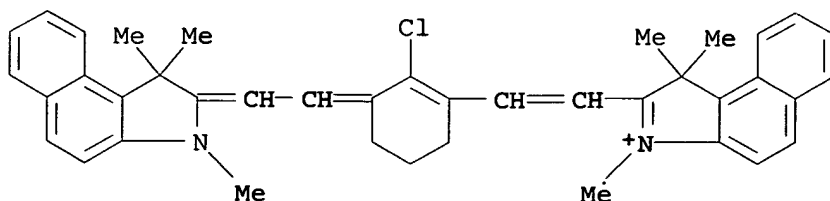
RN 134127-48-3 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1,3-trimethyl-  
 2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-  
 1,1,3-trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1)  
 (9CI) (CA INDEX NAME)

CM 1

CRN 134127-47-2

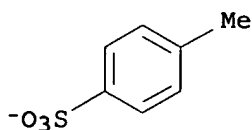
CMF C40 H40 Cl N2



CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



IC ICM G03F007-38  
ICS G03F007-30  
CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 35, 38  
ST digital direct printing plate photoimaging **compn**; IR absorber photopolymn **compn** imagewise irradiation; neg image photopolymn **compn** IR laser  
IT IR laser radiation  
Lithographic plates  
(formation of neg. images suitable as digital direct printing plates by imagewise IR irradiation)  
IT Onium compounds  
(**radical generator**; formation of neg. images suitable as digital direct printing plates by imagewise IR irradiation)  
IT 134127-48-3  
(IR absorbing agent; formation of neg. images suitable as digital direct printing plates by imagewise IR irradiation)  
IT 262612-33-9  
(**radical generator**; formation of neg. images suitable as digital direct printing plates by imagewise IR irradiation)

L36 ANSWER 27 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:229968 HCAPLUS

DOCUMENT NUMBER: 135:46490

TITLE: Preparation of a novel infrared photoinitiator and kinetic monitoring of photopolymerization by real time FT-IR spectroscopy

AUTHOR(S): Li, Bin; Zhang, Shihai; Tang, Liming; Zhou, Qixiang

CORPORATE SOURCE: Department of Chemical Engineering, Materials Research Center, Tsinghua University, Beijing, 100084, Peop. Rep. China

SOURCE: Polymer Journal (Tokyo, Japan) (2001), 33(3), 263-269

CODEN: POLJB8; ISSN: 0032-3896

PUBLISHER: Society of Polymer Science, Japan

DOCUMENT TYPE: Journal

LANGUAGE: English

AB In this paper, a novel cationic cyanine dye-borate complex, 1,3,3,1',3',3'-hexamethyl-11-chloro-10,12-propylenetricarbocyanine butyltriphenylborate, was prepared and used as the photoinitiator in IR laser-induced photopolymn. of acrylates. It has a maximum electron absorption at 786 nm, which matched well with the output wavelength of the adopted IR laser diode, with a maximum molar extinction coefficient of  $1.4 \times 10^5 \text{ L mol}^{-1} \text{ cm}^{-1}$  in chloroform solution. The IR laser irradiation **polymerization** of bis[2-(acryloyloxy)ethyl] phthalate in the presence of an acrylic binder, photoinitiator, and solvent was monitored through real-time FT-IR spectroscopy. The double bond conversion was

determined from the decrease in the absorption of acrylate monomer at 1635 cm<sup>-1</sup> and 1620 cm<sup>-1</sup> (CH<sub>2</sub>=CH stretching) in FT-IR spectra during laser irradiation. As the concentration of photoinitiator rose, the **polymerization** rate (R<sub>p</sub>) increased rapidly but then decreased when the concentration reached a critical value. R<sub>p</sub> and the ultimate double bond conversion increased as the IR laser power was enhanced, whereas they fell greatly as the thickness of the sample layer increased.

IT 299172-64-8P

(IR cyanine dye photoinitiator for polymerization of bis(acryloxyloxyethyl) phthalate)

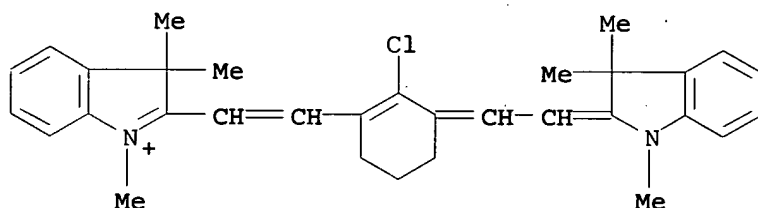
RN 299172-64-8 HCAPLUS

CN 3H-Indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,3,3-trimethyl-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 69415-17-4

CMF C32 H36 Cl N2

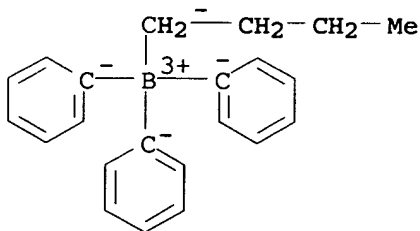


CM 2

CRN 47252-39-1

CMF C22 H24 B

CCI CCS

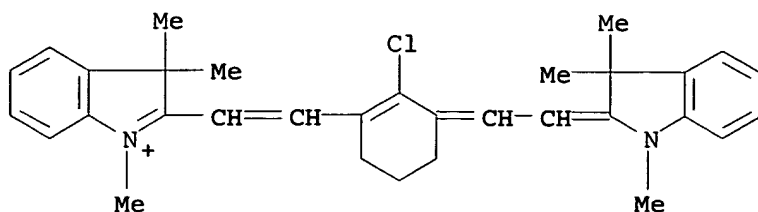


IT 56289-67-9

(starting material; preparation of IR cyanine dye photoinitiator for polymerization of bis(acryloxyloxyethyl) phthalate)

RN 56289-67-9 HCAPLUS

CN 3H-Indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,3,3-trimethyl-, iodide (9CI) (CA INDEX NAME)



● I<sup>-</sup>

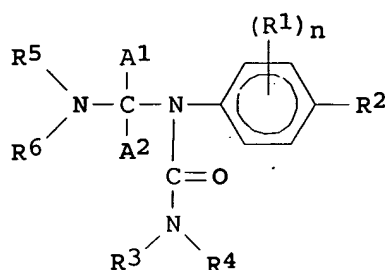
CC 35-3 (Chemistry of Synthetic High Polymers)  
 Section cross-reference(s): 37, 41  
 ST cyanine dye prepn catalyst photopolymn acrylate; IR laser  
 polymn acrylate cyanine dye catalyst; kinetics  
 polymn acrylate FTIR spectroscopy  
 IT IR lasers  
 (in polymerization of bis(acryloxyloxyethyl) phthalate)  
 IT Polymerization kinetics  
 (photopolymn.; of bis(acryloxyloxyethyl) phthalate in presence  
 of IR cyanine dye)  
 IT Polymerization catalysts  
 (photopolymn.; preparation of IR cyanine dye photoinitiator for  
 polymerization of bis(acryloxyloxyethyl) phthalate)  
 IT 299172-64-8P  
 (IR cyanine dye photoinitiator for polymerization  
 of bis(acryloxyloxyethyl) phthalate)  
 IT 27306-39-4, Acrylic acid-butyl acrylate-methyl  
 methacrylate-styrene copolymer  
 (binder in IR cyanine dye-catalyzed polymerization of  
 bis(acryloxyloxyethyl) phthalate)  
 IT 117522-01-7P, Tetramethylammonium butyltriphenylborate  
 (intermediate; preparation of IR cyanine dye photoinitiator for  
 polymerization of bis(acryloxyloxyethyl) phthalate)  
 IT 75-57-0, Tetramethylammonium chloride 960-71-4, Triphenylborane  
 56289-67-9  
 (starting material; preparation of IR cyanine dye  
 photoinitiator for polymerization of  
 bis(acryloxyloxyethyl) phthalate)  
 REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE  
 FOR THIS RECORD. ALL CITATIONS AVAILABLE  
 IN THE RE FORMAT

L36 ANSWER 28 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2001:46098 HCAPLUS  
 DOCUMENT NUMBER: 134:123563  
 TITLE: Photopolymerizable imaging materials  
 containing microcapsules of dye precursors  
 INVENTOR(S): Ishikawa, Shunichi; Morita, Kensuke; Nakamura,  
 Takeki  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001013680	A2	20010119	JP 1999-180307	1999 0625
PRIORITY APPLN. INFO.:			JP 1999-180307	1999 0625

OTHER SOURCE(S): MARPAT 134:123563  
GI



I

AB The material has a photosensitive layer containing (a) microcapsules of azomethine dye precursors I (A1, A2 = NR5R6 or atomic group required to form a coupler residue along with the C atom to which A1 and A2 link; R1 = substituent; n = 0-4; R2 = OH, NR7R8; R7, R8 = H, substituent; R3, R4 = H, alkyl; R5, R6 = substituent; NR5R6 may be N-containing ring), (b) oil droplets containing photoinitiators and **polymerizable** electrophiles, and (c) binders. The photoinitiators may be complexes of cationic dyes with anionic B compds. The material is imagewise exposed to induce **polymerization** of the electrophiles and heated to react unreacted electrophiles with the dye precursor to develop color images.

IT 296781-51-6

(photopolymerizable imaging materials containing microcapsules of azomethine dye precursors, **photoinitiators**, **polymerizable** electrophiles, and binders)

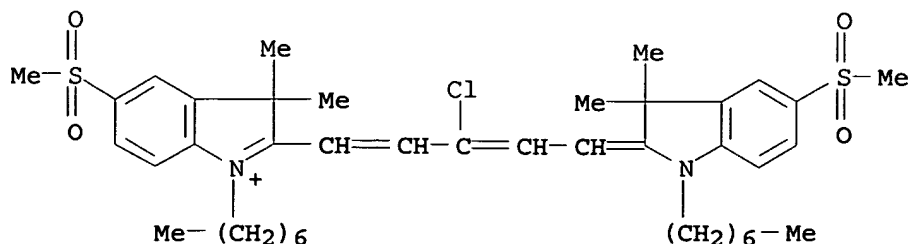
RN 296781-51-6 HCAPLUS

CN 3H-Indolium, 2-[3-chloro-5-[1-heptyl-1,3-dihydro-3,3-dimethyl-5-(methylsulfonyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-1-heptyl-3,3-dimethyl-5-(methylsulfonyl)-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 284019-21-2

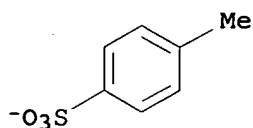
CMF C41 H58 C1 N2 O4 S2



CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



- IC ICM G03F007-004  
ICS G03F007-004; G03F007-26
- CC 74-4 (Radiation Chemistry, Photochemistry, and  
**Photographic** and Other Reprographic Processes)
- ST photopolymerizable imaging azomethine dye precursor microcapsule  
**polymerizable** electrophile
- IT Dyes  
Electrophiles  
Photothermographic copying  
(photopolymerizable imaging materials containing microcapsules of  
azomethine dye precursors, photoinitiators,  
**polymerizable** electrophiles, and binders)
- IT Photoimaging materials  
(photopolymerizable; photopolymerizable imaging materials  
containing microcapsules of azomethine dye precursors,  
photoinitiators, **polymerizable** electrophiles, and  
binders)
- IT **Polymerization** catalysts  
(photopolymn.; photopolymerizable imaging materials containing  
microcapsules of azomethine dye precursors, photoinitiators,  
**polymerizable** electrophiles, and binders)
- IT 300822-98-4P 300822-99-5P  
(in preparation of azomethine dye precursor; photopolymerizable  
imaging materials containing microcapsules of azomethine dye  
precursors, photoinitiators, **polymerizable**  
electrophiles, and binders)
- IT 111-36-4, Butyl isocyanate 288-32-4, Imidazole, reactions  
20191-53-1 180200-98-0 300823-00-1  
(in preparation of azomethine dye precursor; photopolymerizable  
imaging materials containing microcapsules of azomethine dye  
precursors, photoinitiators, **polymerizable**  
electrophiles, and binders)
- IT 117522-01-7 296781-51-6 303153-82-4  
(photopolymerizable imaging materials containing microcapsules of

azomethine dye precursors, **photoinitiators**,  
**polymerizable** electrophiles, and binders)  
 IT 300822-96-2 300822-97-3 320599-59-5  
 (photopolymerizable imaging materials containing microcapsules of  
 azomethine dye precursors, photoinitiators,  
**polymerizable** electrophiles, and binders)  
 IT 320599-61-9P  
 (photopolymerizable imaging materials containing microcapsules of  
 azomethine dye precursors, photoinitiators,  
**polymerizable** electrophiles, and binders)  
 IT 154042-70-3  
 (photopolymerizable imaging materials containing microcapsules of  
 azomethine dye precursors, photoinitiators,  
**polymerizable** electrophiles, and binders)

L36 ANSWER 29 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:686599 HCAPLUS

DOCUMENT NUMBER: 133:274311

TITLE: Thermal-transfer recording materials and image  
 formation process thereof

INVENTOR(S): Namiki, Tomizo; Nakamura, Hideyuki; Fujimori,  
 Junichi; Totsuka, Mikio

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2000267272	A2	20000929	JP 1999-67414	

1999  
0312

PRIORITY APPLN. INFO.: JP 1999-67414

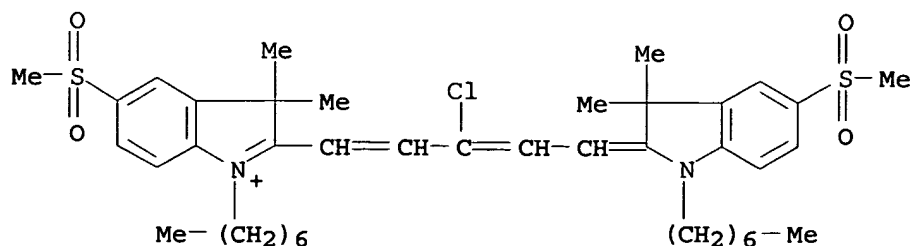
1999  
0312

AB The thermal-transfer recording materials involve supports, (A) **polymerizable** layers containing organic polymer binders, photopolymerizable monomers and/or photopolymerizable oligomers, and photopolymn. initiators, preferably pigment borates, (B) colorant layers containing organic polymer binders and optionally photopolymn. initiators, and (C) adhesive layers containing thermoplastic polymers formed in this order. The recording materials have excellent color reproducibility and are especially suitable for color proofs, DDCP (direct digital color proof), mask images, and multicolor displays.

IT 284019-21-2  
 (spectral sensitizer, photopolymn. **initiator**  
 component; **thermal**-transfer printing materials with  
 unpigmented photopolymerizable layers and photopolymerizable  
 component-free colorant layers)

RN 284019-21-2 HCAPLUS

CN 3H-Indolium, 2-[3-chloro-5-[1-heptyl-1,3-dihydro-3,3-dimethyl-5-(methylsulfonyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-1-heptyl-3,3-dimethyl-5-(methylsulfonyl)- (9CI) (CA INDEX NAME)



IC ICM G03F007-004  
 ICS G03F003-10; G03F007-028; G03F007-40  
 CC 74-7 (Radiation Chemistry, Photochemistry, and  
**Photographic and Other Reprographic Processes**)  
 IT 284019-21-2  
 (spectral sensitizer, photopolymer. initiator  
 component; **thermal**-transfer printing materials with  
 unpigmented photopolymerizable layers and photopolymerizable  
 component-free colorant layers)

L36 ANSWER 30 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2000:600538 HCAPLUS  
 DOCUMENT NUMBER: 133:200879  
 TITLE: Photopolymerizable **composition** for  
 recording materials  
 INVENTOR(S): Takashima, Masanobu; Noro, Masaki; Fukushige,  
 Yuichi; Matsumoto, Hirotaka  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 68 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000235262	A2	20000829	JP 1999-323838	1999 1115

PRIORITY APPLN. INFO.: JP 1998-356543 A  
 1998  
 1215

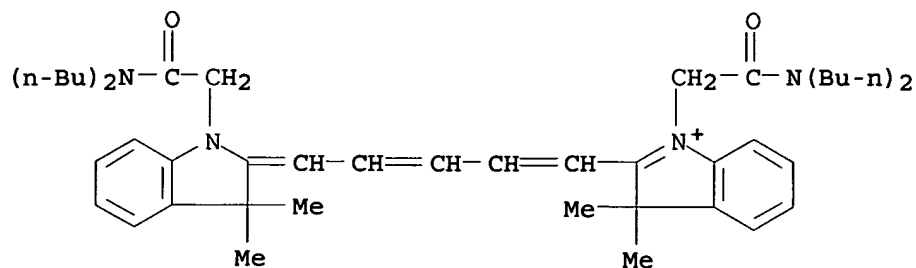
AB The photopolymerizable **composition** contains a polymerizable  
 compound having ethylenic groups and a dye prepared from a reaction of  
 an electron donating color less dye and an electron accepting  
 compound, and a radical generating compound, which  
**generates a radical** by reacting with the dye.  
 The photopolymerizable **composition** is sensitive not only UV  
 but also visible to IR light.

IT 289037-12-3 289037-16-7  
 (photopolymerizable **composition**)

RN 289037-12-3 HCAPLUS

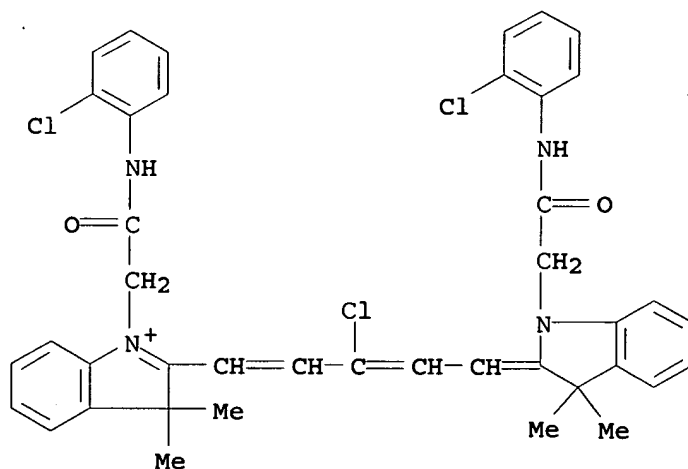
CN 3H-Indolium, 1-[2-(dibutylamino)-2-oxoethyl]-2-[5-[1-[2-(  
 dibutylamino)-2-oxoethyl]-1,3-dihydro-3,3-dimethyl-2H-indol-2-  
 ylidene]-1,3-pentadienyl]-3,3-dimethyl-, bromide (9CI) (CA INDEX

NAME)

● Br<sup>-</sup>

RN 289037-16-7 HCAPLUS

CN 3H-Indolium, 2-[3-chloro-5-[1-[2-[(2-chlorophenyl)amino]-2-oxoethyl]-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1,3-pentadienyl]-1-[2-[(2-chlorophenyl)amino]-2-oxoethyl]-3,3-dimethyl-, bromide (9CI) (CA INDEX NAME)

● Br<sup>-</sup>

IC ICM G03F007-029

ICS C08F002-44; C08F002-48; G03F007-004; G03F007-027; G11B007-24

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35

ST photopolymerizable **compn** recording material

IT Printing (nonimpact)

(color; photopolymerizable **composition** for recording materials such as lithog. plates, photoresists)

IT Light-sensitive materials

(photopolymerizable **composition** for recording materials)

such as lithog. plates, photoresists)  
 IT 4986-89-4, Pentaerythritol tetraacrylate 7473-98-5 21934-64-5  
 37337-02-3, Takenate D 110N 37470-51-2, Butyl  
 3-chloro-4-hydroxybenzoate 50292-95-0 92601-66-6 93207-03-5  
 114090-19-6 136168-28-0 142626-85-5 143129-14-0  
 144190-25-0 145550-89-6 191726-45-1 199127-03-2  
 225107-27-7 289037-10-1 289037-12-3  
 289037-16-7 289037-18-9 289037-24-7  
 (photopolymerizable composition)

L36 ANSWER 31 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2000:506196 HCAPLUS  
 DOCUMENT NUMBER: 133:96781  
 TITLE: Squaric acid dye/iodonium compound composite  
 photoinitiator for photopolymerizable  
 composition  
 INVENTOR(S): He, Yong; Li, Miaozen; Wang, Erjian; Wu,  
 Feipeng  
 PATENT ASSIGNEE(S): Inst. of Photochemistry, Chinese Academy of  
 Sciences, Peop. Rep. China  
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu,  
 13 pp.  
 CODEN: CNXXEV  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Chinese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1232993	A	19991027	CN 1999-107347	1999 0519
CN 1107884	B	20030507		
PRIORITY APPLN. INFO.:			CN 1999-107347	1999 0519

OTHER SOURCE(S): MARPAT 133:96781  
 AB A squaric acid dye/iodonium compound composite photoinitiator for a  
 photopolymerizable composition is disclosed. The squaric acid dye is  
 represented by the formula 2,4-di(Ar)cyclobutadiene-1,3-diol inner  
 salt [Ar = 4-[di(R1)amino]phenyl, 4-(Rloxy)phenyl,  
 2,4,6-trihydroxyphenyl, 2-[di(R1)amino]-5-thienyl,  
 R2-1H-2,3-dihydro-1,1-di(R1)inden-2-ylidenemethyl,  
 R2-2,3-dihydro-3-R3-benzo[d]-1,3-thiazol-2-ylidenemethyl,  
 R1-2,3-dihydro-3-R2-benzo[d]-1,3-selenazol-2-ylidenemethyl,  
 R1-1-R2-1,2,3,4-tetrahydroquinolin-2-ylidenemethyl,  
 9,10-dihydroacridin-9-ylidenemethyl, or 1'-R1-piperidino[3,4,5-de]-  
 1-naphthyl; R1 = H, alkyl, or aryl; R2 = H, halo, alkyl, alkoxy,  
 alkylamino, or aryl; and R3 = H or alkyl] and synthesized by a  
 condensation reaction of 1 mol of squaric acid with 2 mol of a  
 nucleophilic aromatic compound in butanol/benzene or toluene by reflux  
 for 5-20 h. The iodonium compound is represented by the formula  
 di(Ar')I+X- (Ar' = Ph or 4-R4-phenyl; R4 = H, OH, Cl, or alkyl;  
 and X = Cl, BF4, AsF6, PF6, ClO4, SbF6, or TsO). A  
 polymeric material is obtained by near IR-visible light  
 photopolymn. of a composition comprising olefin monomers 29.9-70, the  
 squaric acid dye/iodonium compound composite photoinitiator

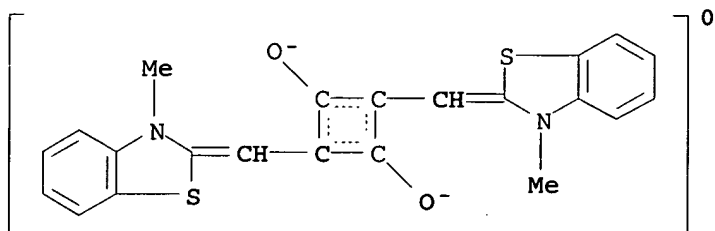
0.001-0.1, and an organic solvent 29.9-70%. A photocured coating is obtained by near IR-visible light photopolymerization of a composition comprising a photoreactive resin 40-75, a multifunctional acrylate crosslinking agent 10-30, a monofunctional acrylate reactive diluent 5-15, the squaric acid dye/iodonium compound composite photoinitiator 1-11, and an organic solvent 5-10%. The olefin monomers are selected from acrylates, acrylamide, acrylonitrile, styrene, vinyl acetate, and vinylpyrrolidone; the photoreactive resin is selected from epoxidized acrylates, polyester acrylates, polyurethane acrylates, and unsaturated polyesters; the crosslinking agent is selected from trihydroxymethylolpropane triacrylate, ethoxylated or propoxylated trihydroxymethylolpropane triacrylate, pentaerythritol triacrylate, bis(pentaerythritol) hexaacrylate, alkylene bis(acrylates), and glycol bis(acrylate); and the reactive diluent is selected from ether-type monofunctional acrylates, alkyl-type monofunctional acrylates, hydroxyalkyl acrylates, and hydroxyalkylmethacrylates.

IT 123036-97-5P 201557-75-7P

(synthesis and use in photoinitiator compounds for photopolymerizable compounds.)

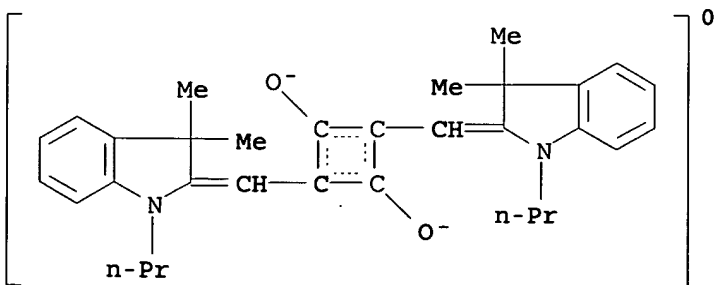
RN 123036-97-5 HCAPLUS

CN Cyclobutenediyl cation, 1,3-dihydroxy-2,4-bis[(3-methyl-2H-indol-2-ylidene)methyl]-, bis(inner salt) (9CI) (CA INDEX NAME)



RN 201557-75-7 HCAPLUS

CN Cyclobutenediyl cation, 1,3-bis[(1,3-dihydro-3,3-dimethyl-1-propyl-2H-indol-2-ylidene)methyl]-2,4-dihydroxy-, bis(inner salt) (9CI) (CA INDEX NAME)



IC ICM G03F007-029

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Polymerization

(photopolymerization; of acrylic compounds using squaric acid)

dye/iodonium compound composite photoinitiators)  
 IT 43134-09-4P 123036-97-5P 201557-75-7P  
 (synthesis and use in photoinitiator compns. for  
 photopolymerizable compns.)

L36 ANSWER 32 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1999:566275 HCAPLUS  
 DOCUMENT NUMBER: 131:191861  
 TITLE: Imaging system employing encapsulated  
 radiation-sensitive composition  
 INVENTOR(S): Polycarpov, Alex; Camillus, Joseph C.  
 PATENT ASSIGNEE(S): Cycolor, Inc., USA  
 SOURCE: PCT Int. Appl., 20 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9944099	A1	19990902	WO 1999-US4131	1999 0225
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2319603	AA	19990902	CA 1999-2319603	1999 0225
AU 9927902	A1	19990915	AU 1999-27902	1999 0225
BR 9907640	A	20001114	BR 1999-7640	1999 0225
EP 1058864	A1	20001213	EP 1999-908475	1999 0225
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6174642	B1	20010116	US 1999-257624	1999 0225
JP 2002505447	T2	20020219	JP 2000-533790	1999 0225
PRIORITY APPLN. INFO.:			US 1998-75892P	P 1998 0225
			WO 1999-US4131	W 1999

0225

OTHER SOURCE(S): MARPAT 131:191861

AB A photosensitive imaging is disclosed comprising a support having a layer of microcapsules on 1 surface thereof, the microcapsules having an image-forming agent associated therewith and containing an internal phase including a photohardenable composition, the composition comprising a free-radical addition **polymerizable** or crosslinkable compound and complex of an IR-sensitive cationic dye and a borate anion being capable of absorbing IR radiation and producing free radicals which initiate free-radical **polymerization** or crosslinking of the **polymerizable** or crosslinkable compound

IT 137781-62-5 141714-60-5 141714-62-7  
141714-63-8 142300-12-7 142632-63-1  
153296-41-4 240406-03-5 240406-04-6

(imaging system using encapsulated radiation-sensitive composition containing IR-sensitive cyanine dye **photoinitiator**)

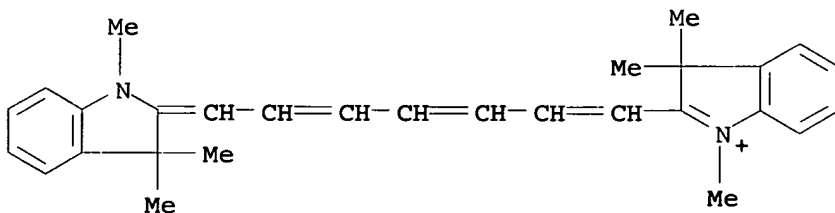
RN 137781-62-5 HCAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, (T-4)-butyltriphenylborate(1-)  
(9CI) (CA INDEX NAME)

CM 1

CRN 47676-39-1

CMF C29 H33 N2

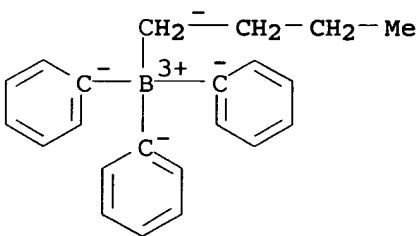


CM 2

CRN 47252-39-1

CMF C22 H24 B

CCI CCS



RN 141714-60-5 HCAPLUS

CN Quinolinium, 1-ethyl-2-[7-(1-ethyl-2(1H)-quinolinylidene)-1,3,5-

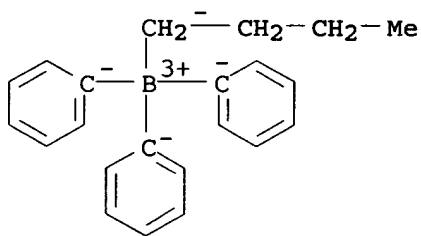
heptatrienyl]-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 47252-39-1

CMF C22 H24 B

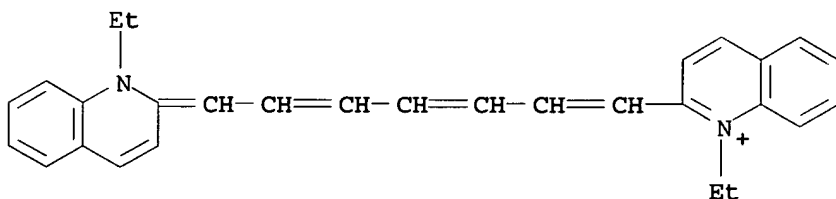
CCI CCS



CM 2

CRN 37069-61-7

CMF C29 H29 N2



RN 141714-62-7 HCAPLUS

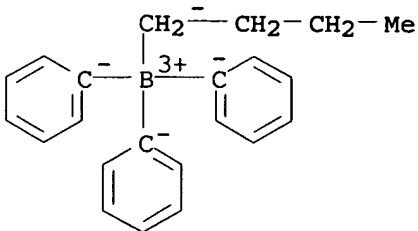
CN Benzothiazolium, 3-ethyl-2-[7-(3-ethyl-2(3H)-benzothiazolydene)-1,3,5-heptatrienyl]-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 47252-39-1

CMF C22 H24 B

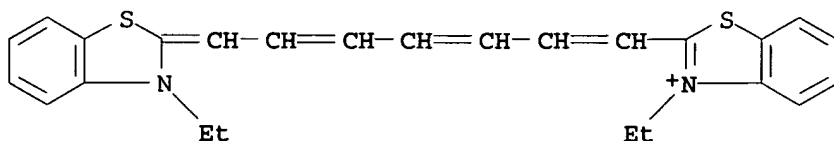
CCI CCS



CM 2

CRN 23178-68-9

CMF C25 H25 N2 S2



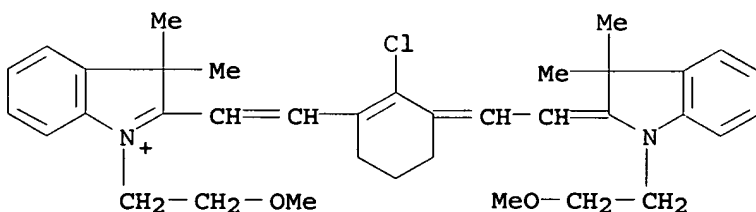
RN 141714-63-8 HCAPLUS

CN 3H-Indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-1-(2-methoxyethyl)-3,3-dimethyl-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-(2-methoxyethyl)-3,3-dimethyl-, (T-4)-butyltriphenylborate(1-)  
(9CI) (CA INDEX NAME)

CM 1

CRN 102185-06-8

CMF C36 H44 Cl N2 O2

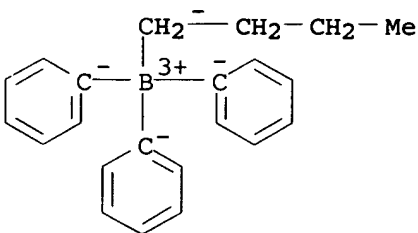


CM 2

CRN 47252-39-1

CMF C22 H24 B

CCI CCS



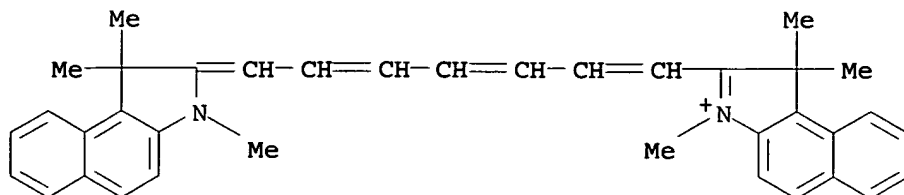
RN 142300-12-7 HCAPLUS

CN 1H-Benz[e]indolium, 2-[7-(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)-1,3,5-heptatrienyl]-1,1,3-trimethyl-,  
(T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 47809-39-2

CMF C37 H37 N2

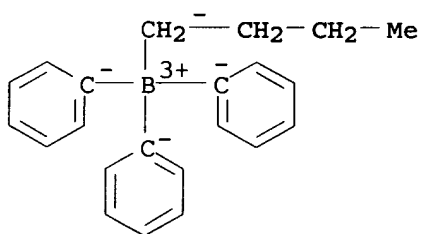


CM 2

CRN 47252-39-1

CMF C22 H24 B

CCI CCS



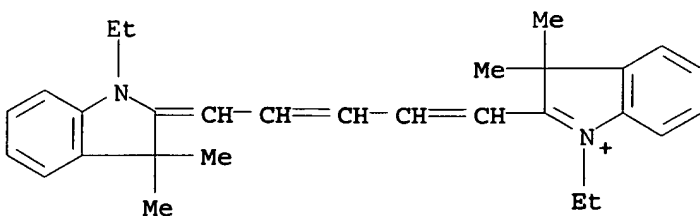
RN 142632-63-1 HCAPLUS

CN 3H-Indolium, 1-ethyl-2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 52754-39-9

CMF C29 H35 N2

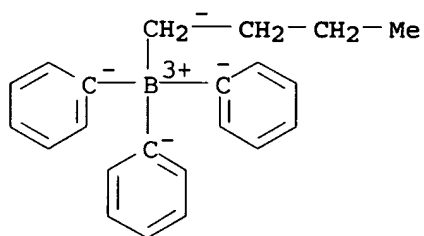


CM 2

CRN 47252-39-1

CMF C22 H24 B

CCI CCS



RN 153296-41-4 HCAPLUS

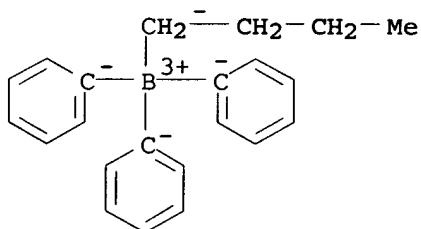
CN Benzoxazolium, 3-ethyl-2-[5-(3-ethyl-2(3H)-benzoxazolyli-  
 pentadienyl)-, (T-4)-butyltriphenylborate(1-)] (9CI) (CA INDEX  
 NAME)

CM 1

CRN 47252-39-1

CMF C22 H24 B

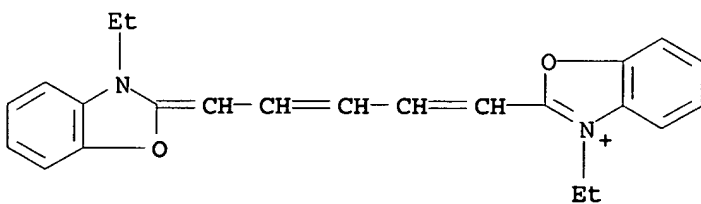
CCI CCS



CM 2

CRN 37069-76-4

CMF C23 H23 N2 O2

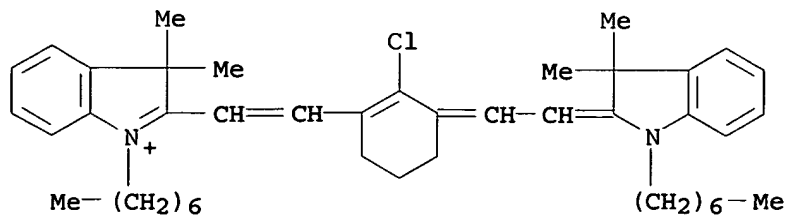


RN 240406-03-5 HCAPLUS

CN 3H-Indolium, 2-[2-[2-chloro-3-[(1-heptyl-1,3-dihydro-3,3-dimethyl-  
 2H-indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-heptyl-  
 3,3-dimethyl-, (T-4)-butyltriphenylborate(1-)] (9CI) (CA INDEX  
 NAME)

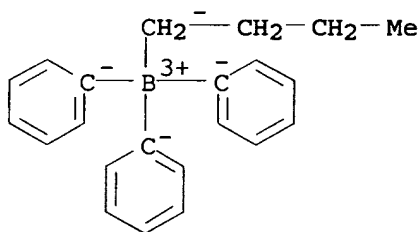
CM 1

CRN 240406-02-4  
CMF C44 H60 Cl N2



CM 2

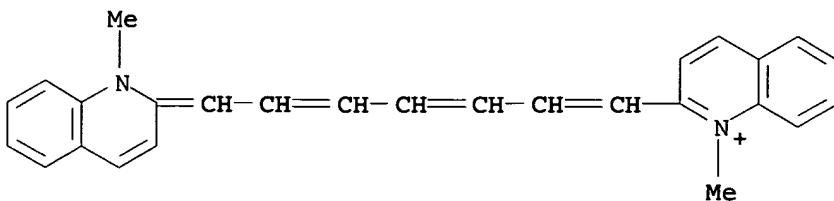
CRN 47252-39-1  
CMF C22 H24 B  
CCI CCS



RN 240406-04-6 HCAPLUS  
CN Quinolinium, 1-methyl-2-[7-(1-methyl-2(1H)-quinolinylidene)-1,3,5-heptatrienyl]-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

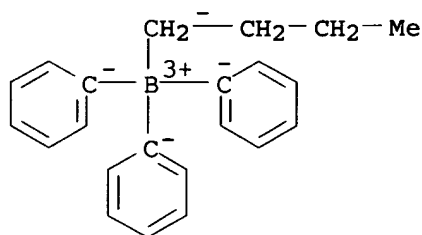
CM 1

CRN 123949-69-9  
CMF C27 H25 N2



CM 2

CRN 47252-39-1  
CMF C22 H24 B  
CCI CCS



IC ICM G03F007-029  
ICS G03F007-00  
CC 74-4 (Radiation Chemistry, Photochemistry, and  
Photographic and Other Reprographic Processes)  
ST imaging encapsulated radiation microcapsule electron donor; free  
radical polymn triphenyl butyl borane; cyanine  
dye free radical polymn imaging  
IT Polymerization  
(radical; imaging system using encapsulated  
radiation-sensitive composition containing IR-sensitive cyanine dye  
photoinitiator)  
IT 136107-30-7 137781-62-5 141563-94-2 141563-95-3  
141714-54-7 141714-60-5 141714-62-7  
141714-63-8 142282-45-9 142300-12-7  
142632-62-0 142632-63-1 142632-65-3 148630-91-5  
148630-94-8 148630-96-0 148630-97-1 148630-99-3  
148631-01-0 148631-03-2 148631-04-3 148631-07-6  
148657-93-6 148657-94-7 149580-25-6 149580-27-8  
149580-28-9 153296-41-4 240406-03-5  
240406-04-6 240421-22-1 240421-23-2 240421-24-3  
240421-25-4 240421-26-5 240421-27-6 240421-28-7  
240421-30-1 240421-32-3 240421-33-4 240421-34-5  
240421-35-6 240421-37-8 240421-38-9 240421-39-0  
240421-40-3 240421-41-4 240421-42-5 240421-43-6  
240421-45-8 240421-47-0 240421-49-2 240421-50-5  
240421-51-6

(imaging system using encapsulated radiation-sensitive composition  
containing IR-sensitive cyanine dye photoinitiator)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L36 ANSWER 33 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1999:310115 HCAPLUS  
DOCUMENT NUMBER: 131:74016  
TITLE: Synthesis of an infrared laser sensitive  
photoinitiator and its application in  
photopolymerization  
AUTHOR(S): Li, Bin; Tang, Liming; Dong, Hanpeng; Liu,  
Deshan; Zhou, Qixiang  
CORPORATE SOURCE: Department of Chemical Engineering, Tsinghua  
University, Beijing, 100084, Peop. Rep. China  
SOURCE: Yingyong Huaxue (1999), 16(2), 113-114  
CODEN: YIHUED; ISSN: 1000-0518  
PUBLISHER: Yingyong Huaxue Bianji Weiyuanhui  
DOCUMENT TYPE: Journal  
LANGUAGE: Chinese

AB A novel cationic dye-borate complex has been synthesized and used for IR laser-induced photopolymn. The photoinitiator could initiate the **polymerization** of trihydroxymethylpropane triacrylate in 23.4% conversion under IR laser irradiation

IT **137781-62-5P**  
(synthesis of IR laser sensitive **photoinitiator** and its application in photopolymn.)

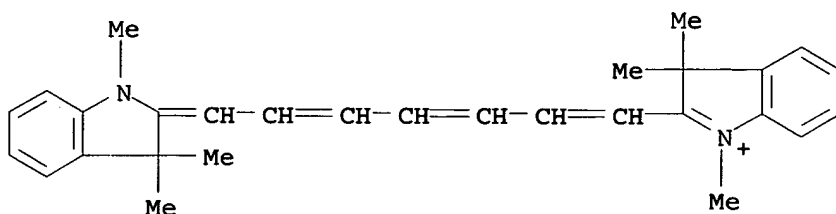
RN 137781-62-5 HCAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 47676-39-1

CMF C29 H33 N2

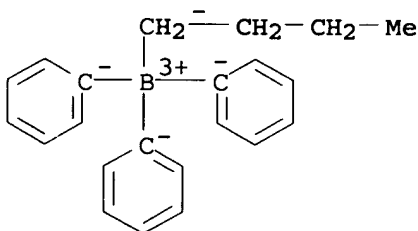


CM 2

CRN 47252-39-1

CMF C22 H24 B

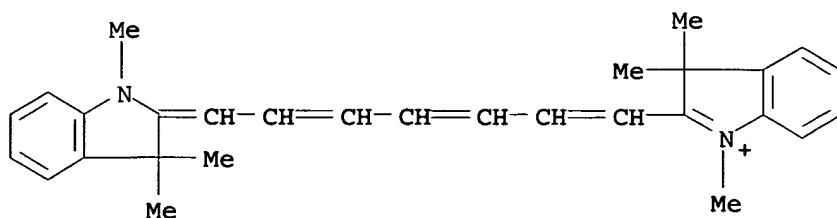
CCI CCS



IT **19764-96-6**  
(synthesis of IR laser sensitive **photoinitiator** and its application in photopolymn.)

RN 19764-96-6 HCAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, iodide (9CI) (CA INDEX NAME)



● I<sup>-</sup>

CC 35-3 (Chemistry of Synthetic High Polymers)  
 Section cross-reference(s): 74  
 IT **Polymerization catalysts**  
 (photopolymn.; synthesis of IR laser sensitive photoinitiator  
 and its application in photopolymn.)  
 IT **137781-62-5P**  
 (synthesis of IR laser sensitive **photoinitiator** and  
 its application in photopolymn.)  
 IT 75-57-0, Tetramethylammonium chloride 1095-03-0, Triphenyl  
 borate 19764-96-6  
 (synthesis of IR laser sensitive **photoinitiator** and  
 its application in photopolymn.)

L36 ANSWER 34 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1999:111889 HCAPLUS  
 DOCUMENT NUMBER: 130:189456  
 TITLE: Laser-writable negative-working  
 thermal/optical imaging material containing  
 lamellar compound  
 INVENTOR(S): Kunida, Kazuto; Aono, Toshiaki  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 35 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11038633	A2	19990212	JP 1997-196062	1997 0722

PRIORITY APPLN. INFO.: JP 1997-196062

1997  
0722

AB The material, useful for direct plate making from digital signals, comprises (A) a layer comprising an ethylenically-unsatd. monomer, a **polymerization initiator generating radicals** upon interaction with an IR absorber, and an IR absorber and (B) an overcoat layer containing an inorg. lamellar compound preferably of aspect ratio  $\geq 20$ . The overcoat layer shields the polymerizable layer from O to accelerate curing

reaction.

IT 23178-67-8, NK 2014  
(laser-writable neg.-working thermal/optical imaging sheet with  
O-shielding coating layer)

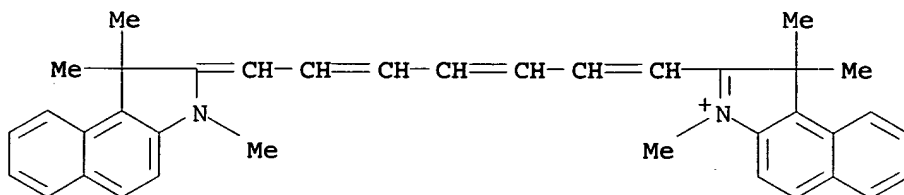
RN 23178-67-8 HCAPLUS

CN 1H-Benz[e]indolium, 2-[7-(1,3-dihydro-1,1,3-trimethyl-2H-  
benz[e]indol-2-ylidene)-1,3,5-heptatrienyl]-1,1,3-trimethyl-,  
perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 47809-39-2

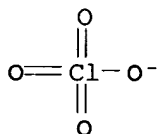
CMF C37 H37 N2



CM 2

CRN 14797-73-0

CMF Cl O4



IC ICM G03F007-11

ICS B41N001-14; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)

Section cross-reference(s): 38

ST lithog plate acrylic oxygen shielding coating; lamellar  
compd oxygen shielding lithog compn; mica  
oxygen shielding coating lithog plate

IT Lithographic plates

(laser-writable neg.-working thermal/optical imaging sheet with  
O-shielding coating layer)

IT Polymerization catalysts

(radical; laser-writable neg.-working thermal/optical  
imaging sheet with O-shielding coating layer)

IT 22371-56-8, NK 3508 23178-67-8, NK 2014

(laser-writable neg.-working thermal/optical imaging sheet with  
O-shielding coating layer)

L36 ANSWER 35 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1999:2398 HCAPLUS

DOCUMENT NUMBER: 130:175182

TITLE: Photoinitiating systems and photopolymer

materials for holography

AUTHOR(S): Zhang, Cunlin; Zhao, Jia; He, Jingsuo; Li, Lidong; Yang, Yongyuan

CORPORATE SOURCE: Department of Physics, Capital Normal University, Beijing, 100037, Peop. Rep. China

SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (1998), 3559(Holographic Displays and Optical Elements II), 81-87

CODEN: PSISDG; ISSN: 0277-786X

PUBLISHER: SPIE-The International Society for Optical Engineering

DOCUMENT TYPE: Journal

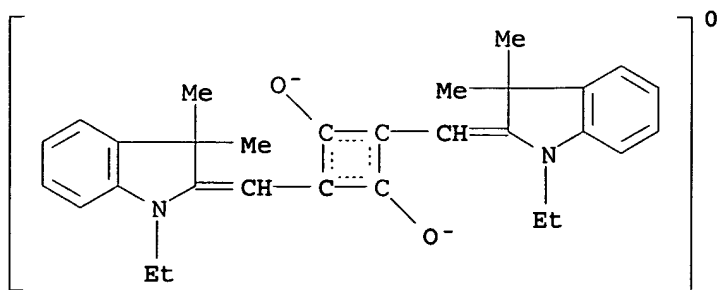
LANGUAGE: English

AB In this paper, the kinetics of photosensitive initiating **polymerization** and photopolymer holog. recording materials were studied. Four sensitizers that could be sensitive to He-Ne (632.8nm) laser were synthesized and chosen for the study: (1) NK 529 (2) NK 3960 (3) (MCD) (4)ECD. The long-wavelength sensitive photoinitiating system are composed of one of the four compds. above, 2-chlorohexaarylbiimidazole(o-cl-HABI) and 3-mercapto-4-methyl-4H-1,2,4,-triazole(MTA), which acted as sensitizer, initiator and hydrogen-donor resp. The kinetic study was carried out by using dilatometer, we found the relationships between the rate of **polymerization** and the concentration of each component. We believe that the photopolymn. was initiated by free radicals which were produced by the electron transfer between the sensitizer and the initiator in the excited state. Comparing the monomer conversion of these four systems, we found: MCD >ECD >NK 529 >NK 3960. We chose the system (MCD-HABI-MTA) as a photoinitiating system of photopolymer holog. materials. The holog. material was composed of the above photoinitiating system, a binder, a mono- or multi-functional monomer, and other additives. Adding the third beam to expose the photopolymer plate simultaneously during the initial holog. exposure can increase the effective exposure sensitivity of the photopolymer plate. Mechanisms of photoinitiating **polymerization** and hologram formation are discussed. More than 80% of reflection grating diffraction efficiency can be obtained. The holog. gratings have a good phys. and chemical stability under ambient conditions.

IT 88475-75-6, 2,4-Bis[1-ethyl-3,3-diMe-2-indolinyliene)methyl]-cyclobuta dienylium-1,3-diolate (ECD, sensitizer; **photoinitiating** systems and photopolymer materials for holog.)

RN 88475-75-6 HCAPLUS

CN Cyclobutenediylum, 1,3-bis[(1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)methyl]-2,4-dihydroxy-, bis(inner salt) (9CI) (CA INDEX NAME)

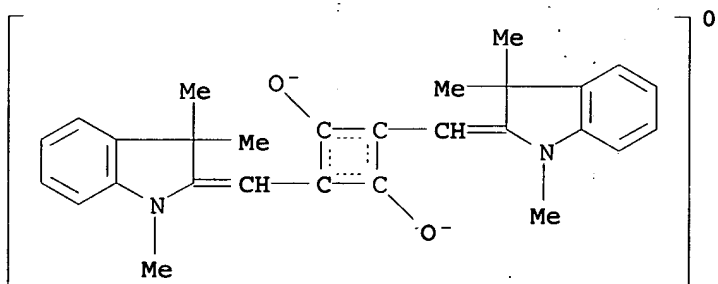


IT 12243-46-8, MCD

(MCD, sensitizer; **photoinitiating** systems and photopolymer materials for holog.)

RN 12243-46-8 HCAPLUS

CN Cyclobutenediylum, 1,3-bis[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)methyl]-2,4-dihydroxy-, bis(inner salt) (9CI) (CA INDEX NAME)



IT 220423-10-9, NK 3960

(NK 3960, sensitizer; **photoinitiating** systems and photopolymer materials for holog.)

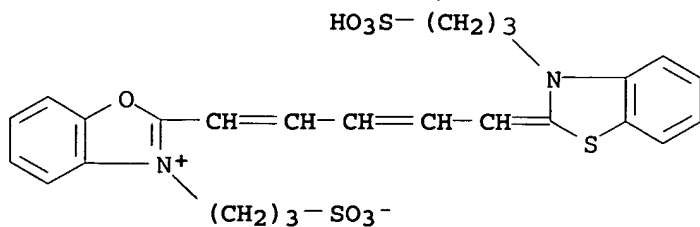
RN 220423-10-9 HCAPLUS

CN Benzoxazolium, 3-(3-sulfopropyl)-2-[5-[3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]-1,3-pentadienyl]-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

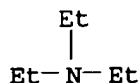
CRN 220423-09-6

CMF C25 H26 N2 O7 S3

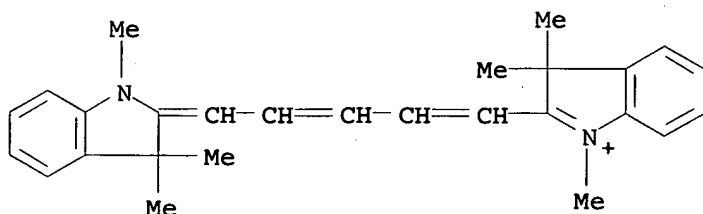


CM 2

CRN 121-44-8  
CMF C6 H15 N



IT 36536-22-8, NK529  
(sensitizer; **photoinitiating** systems and photopolymer materials for holog.)  
RN 36536-22-8 HCAPLUS  
CN 3H-Indolium, 2-[5-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3-pentadienyl]-1,3,3-trimethyl-, iodide (9CI) (CA INDEX NAME)



● I<sup>-</sup>

CC 74-8 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)  
Section cross-reference(s): 35  
IT 88475-75-6, 2,4-Bis[1-ethyl-3,3-diMe-2-indolinyliidene)methyl]-cyclobuta dienylium-1,3-diolate  
(ECD, sensitizer; **photoinitiating** systems and photopolymer materials for holog.)  
IT 12243-46-8, MCD  
(MCD, sensitizer; **photoinitiating** systems and photopolymer materials for holog.)  
IT 220423-10-9, NK 3960  
(NK 3960, sensitizer; **photoinitiating** systems and photopolymer materials for holog.)  
IT 36536-22-8, NK529  
(sensitizer; **photoinitiating** systems and photopolymer materials for holog.)  
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L36 ANSWER 36 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1998:786102 HCAPLUS  
DOCUMENT NUMBER: 130:88196  
TITLE: Recording method of photo- and heat-sensitive recording material  
INVENTOR(S): Washizu, Shintaro; Fukushige, Hirokazu; Usami, Tomomasa  
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 37 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10324061	A2	19981208	JP 1997-133659	

1997  
0523

PRIORITY APPLN. INFO.: JP 1997-133659

1997  
0523

OTHER SOURCE(S): MARPAT 130:88196

AB The method is claimed, in which the title material, comprising a support coated with a photo- and heat-sensitive recording layer containing (A) an electron-donating colorless dye microencapsulated in heat-responsive microcapsules, (B) either a compound having electron-accepting portion and **polymerizing** vinyl monomer portions in its mol. or an electron-accepting color developer and a **polymerizing** vinyl monomer, and (C) an organic borate salt, is exposed to form an latent image. In the method in which a light source that can expose the material and form a spot of  $\leq 600$   $\mu\text{m}$  in size in 1 direction at the objective position is employed, the material, which is disposed at the objective position, is first irradiated with a beam from the light source in accordance with an image distribution so that a spot of  $\leq 600$   $\mu\text{m}$  in  $\geq 1$  direction is formed and then irradiated with a beam in accordance with the distribution so that at least part of  $\geq 1$  spot from the beam overlaps on the spot irradiated first. The material provides high quality black-and-white or color images with high sensitivity and contrast using IR or green to red laser beams by completely dry process.

IT 218618-31-6 218618-32-7 218618-34-9

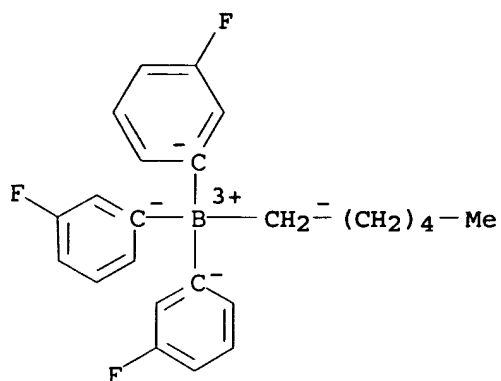
(polymerization initiator; photo- and heat  
 -sensitive printing material comprising dye-containing  
 microcapsule, organic borate, electron-accepting compound, and vinyl  
 monomer)

RN 218618-31-6 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1,3-trimethyl-  
 2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-  
 1,1,3-trimethyl-, (T-4)-tris(3-fluorophenyl)hexylborate(1-) (9CI)  
 (CA INDEX NAME)

CM 1

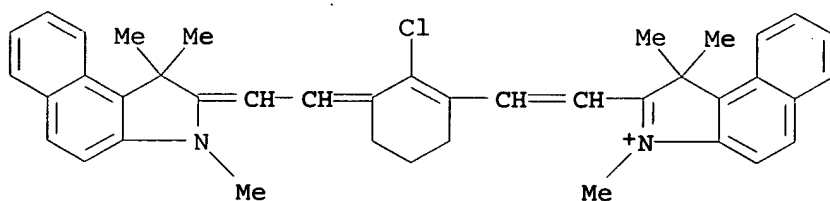
CRN 191726-44-0  
 CMF C24 H25 B F3  
 CCI CCS



CM 2

CRN 134127-47-2

CMF C40 H40 Cl N2



RN 218618-32-7 HCAPLUS

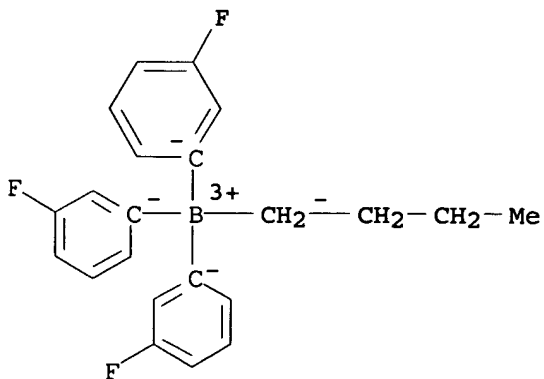
CN 3H-Indolium, 1-heptyl-2-[5-(1-heptyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-, (T-4)-butyltris(3-fluorophenyl)borate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 191726-42-8

CMF C22 H21 B F3

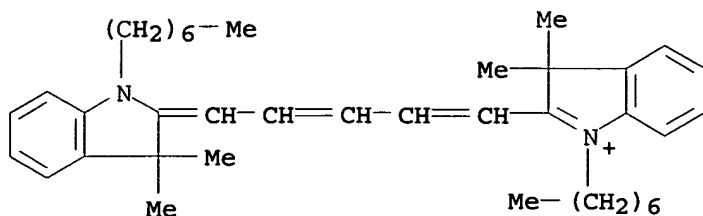
CCI CCS



CM 2

CRN 123022-20-8

CMF C39 H55 N2



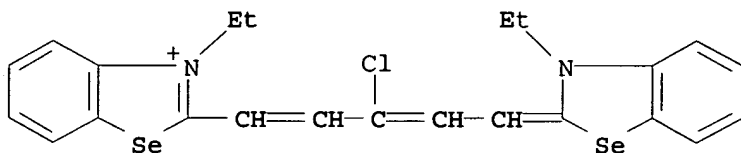
RN 218618-34-9 HCAPLUS

CN Benzoselenazolium, 2-[3-chloro-5-(3-ethyl-2(3H)-benzoselenazolylidene)-1,3-pentadienyl]-3-ethyl-, (T-4)-butyltris(3-fluorophenyl)borate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 218618-33-8

CMF C23 H22 Cl N2 Se2

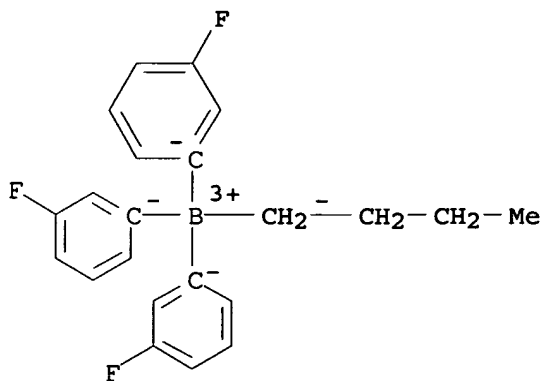


CM 2

CRN 191726-42-8

CMF C22 H21 B F3

CCI CCS



IC ICM B41M005-26  
 ICS B41M005-28; G03F007-004; G03F007-027; G03F007-029; G03F007-26  
 CC 74-6 (Radiation Chemistry, Photochemistry, and  
**Photographic** and Other Reprographic Processes)  
 IT 199127-03-2 218618-28-1 218618-29-2D, onium derivs.  
 218618-30-5 **218618-31-6 218618-32-7**  
 218618-34-9 218618-35-0  
 (polymerization initiator; photo- and heat  
 -sensitive printing material comprising dye-containing  
 microcapsule, organic borate, electron-accepting compound, and vinyl  
 monomer)

L36 ANSWER 37 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1998:782002 HCAPLUS  
 DOCUMENT NUMBER: 130:73842  
 TITLE: Photo- and heat-sensitive recording material  
 and image-formation using same  
 INVENTOR(S): Washisu, Shintaro; Fukushige, Yuichi; Usami,  
 Tomomasa  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 44 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 10319585	A2	19981204	JP 1997-132584	1997 0522
PRIORITY APPLN. INFO.:			JP 1997-132584	1997 0522

OTHER SOURCE(S): MARPAT 130:73842

AB The title material, used in an image-forming process in which it  
 is imagewise irradiated with a secondary higher harmonics obtained  
 from a laser beam by using a nonlinear optical device and also is  
 uniformly heated at a temperature higher than the coloring temperature of the  
 material to form an image thereon, comprises a support with a  
 coating of a recording layer possessing electron-donating  
 colorless dye-containing heat-responsible microcapsules, a  
 radical-generating agent, and either a compound having  
 electron-accepting and **polymerizing** vinyl monomer portions in  
 its mol. or an electron-accepting color developer and a  
**polymerizing** vinyl monomer. An image-recording method  
 comprising the above process is also claimed. The material  
 provides clear, high contrast images by using long wavelength  
 irradiation lasers such as semiconductor lasers without spectrally  
 sensitizing the material.

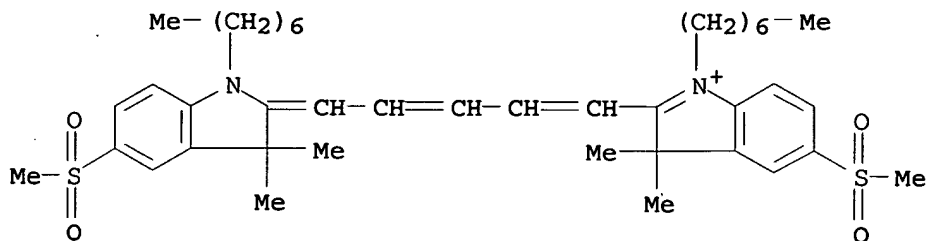
IT 218132-12-8 218132-14-0  
 (photopolymn. initiator; photo- and heat  
 -sensitive recording material comprising colorless dye-containing  
 microcapsule, electron-accepting compound, vinyl monomer, and  
**radical generator**)  
 RN 218132-12-8 HCAPLUS

CN 3H-Indolium, 1-heptyl-2-[5-[1-heptyl-1,3-dihydro-3,3-dimethyl-5-(methylsulfonyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-5-(methylsulfonyl)-, (T-4)-tris(3-fluorophenyl)(phenylmethyl)borate(1-)(9CI) (CA INDEX NAME)

CM 1

CRN 218132-11-7

CMF C41 H59 N2 O4 S2

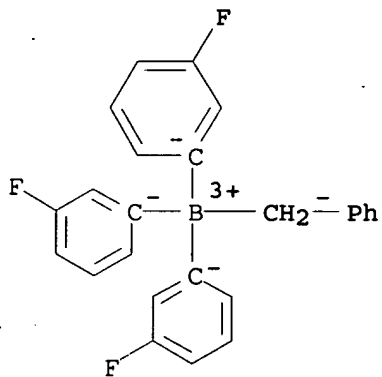


CM 2

CRN 191726-67-7

CMF C25 H19 B F3

CCI CCS



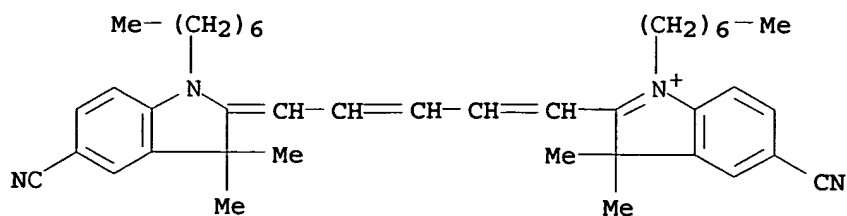
RN 218132-14-0 HCAPLUS

CN 3H-Indolium, 5-cyano-2-[5-(5-cyano-1-heptyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)-1,3-pentadienyl]-1-heptyl-3,3-dimethyl-, (T-4)-tris(3-fluorophenyl)(phenylmethyl)borate(1-)(9CI) (CA INDEX NAME)

CM 1

CRN 218132-13-9

CMF C41 H53 N4

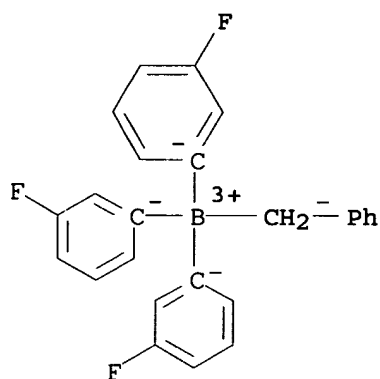


CM 2

CRN 191726-67-7

CMF C25 H19 B F3

CCI CCS



IT 218132-35-5 218132-39-9

(spectral sensitizer; photo- and heat-sensitive recording material comprising colorless dye-containing microcapsule, electron-accepting compound, vinyl monomer, and **radical generator**)

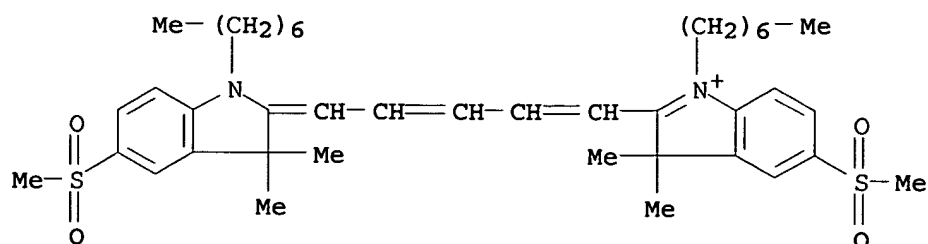
RN 218132-35-5 HCAPLUS

CN 3H-Indolium, 1-heptyl-2-[5-[1-heptyl-1,3-dihydro-3,3-dimethyl-5-(methylsulfonyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-5-(methylsulfonyl)-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 218132-11-7

CMF C41 H59 N2 O4 S2

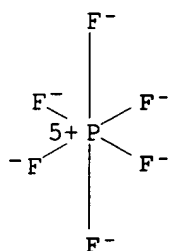


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



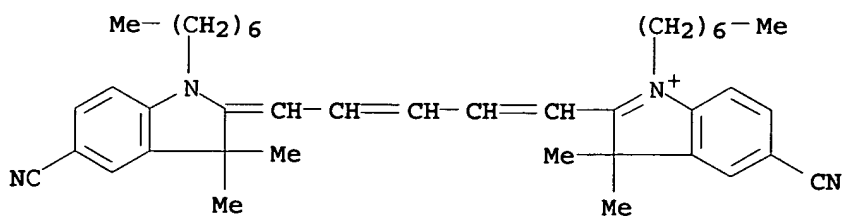
RN 218132-39-9 HCAPLUS

CN 3H-Indolium, 5-cyano-2-[5-(5-cyano-1-heptyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)-1,3-pentadienyl]-1-heptyl-3,3-dimethyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 218132-13-9

CMF C41 H53 N4

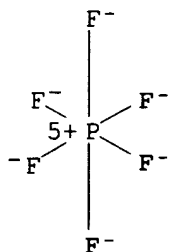


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



IC ICM G03F007-004  
 ICS G03F007-004; B41M005-26; B41M005-28; G03F007-029;  
 G03F007-095; G03F007-26  
 CC 74-4 (Radiation Chemistry, Photochemistry, and  
**Photographic** and Other Reprographic Processes)  
 IT 199127-03-2 **218132-12-8 218132-14-0**  
 218132-16-2  
 (photopolymn. **initiator**; photo- and heat  
 -sensitive recording material comprising colorless dye-containing  
 microcapsule, electron-accepting compound, vinyl monomer, and  
**radical generator**)  
 IT **218132-35-5 218132-39-9**  
 (spectral sensitizer; photo- and heat-sensitive recording  
 material comprising colorless dye-containing microcapsule,  
 electron-accepting compound, vinyl monomer, and **radical**  
**generator**)

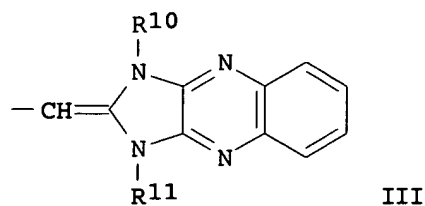
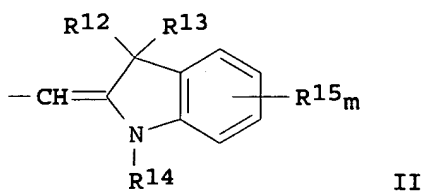
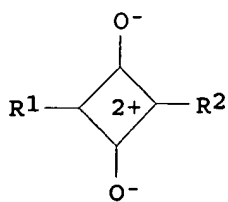
L36 ANSWER 38 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1998:352618 HCAPLUS  
 DOCUMENT NUMBER: 129:34443  
 TITLE: Photopolymerizable **composition**  
 containing addition-**polymerizable**  
 compound, **radical**-producing agent,  
 and squarylium compound  
 INVENTOR(S): Yamaoka, Tsuguo; Koseki, Kenichi; Obara,  
 Mitsuharu; Shimizu, Ikuo; Ito, Yukiyo;shi;  
 Kawato, Hitoshi  
 PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Japan  
 SOURCE: U.S., 11 pp., Cont. of U.S. Ser. No. 204,363,  
 abandoned.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5756258	A	19980526	US 1995-386468	1995 0210
EP 1113335	A1	20010704	EP 2001-106388	1993 0707
EP 1113335	B1	20031126		
R: CH, DE, FR, GB, LI				
US 5527659	A	19960618	US 1994-331147	1994

US 6007965	A	19991228	US 1997-946353	1028
				1997
				1007
PRIORITY APPLN. INFO.:			JP 1992-185224	A
				1992
				0713
			US 1993-52999	B1
				1993
				0427
			US 1994-204363	B1
				1994
				0311
			US 1994-331147	A2
				1994
				1028
			JP 1992-113604	A
				1992
				0506
			EP 1993-914964	A3
				1993
				0707
			US 1995-386468	A1
				1995
				0210

OTHER SOURCE(S) :  
GI

MARPAT 129:34443



AB The present invention relates to a photopolymerizable composition comprising an addition-polymerizable compound which has

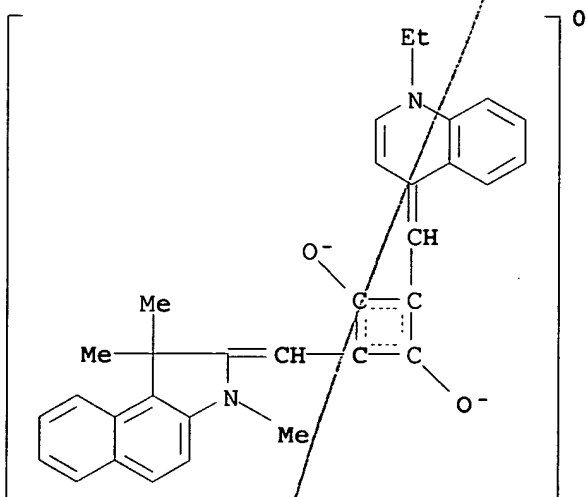
at least one ethylenically unsatd. double bond, a radical-producing agent, and a squarylium compound represented by the formula I (R1 = II where R12, R13 = alkyl or R12 and R13 together with the carbon atom to which they are bonded may form a hydrocarbon ring which may be substituted with  $\geq 1$  halogen atom, an alkyl group, or an alkoxy group; R14 = H, alkyl, aryl, or aralkyl; R15 = halogen, alkyl, aryl, alkoxy, or aralkyl; m = an integer of 0-4 provided that when m = 2-4, two adjacent R15 groups together may form an aromatic ring which may be substituted with  $\geq 1$  halogen atom, an alkyl group, or an alkoxy group; R2 = III where R10, R11 = H, alkyl, aryl, or aralkyl). The composition is highly sensitive to visible and near IR lights, particularly He-Ne laser, LED, diode laser, etc. having oscillation wavelengths in  $\geq 600$  nm, and thus is useful as a material for holograms, presensitized plates for laser direct process, dry film resists, digital proofs, and photosensitive microcapsules.

IT 156057-17-9

(photopolymerizable compns. for holog. and photolithog. containing)

RN 156057-17-9 HCAPLUS

CN Cyclobutenediylum, 1-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)methyl]-3-[(1-ethyl-4(1H)-quinolinylidene)methyl]-2,4-dihydroxy-, bis(inner salt) (9CI) (CA INDEX NAME)

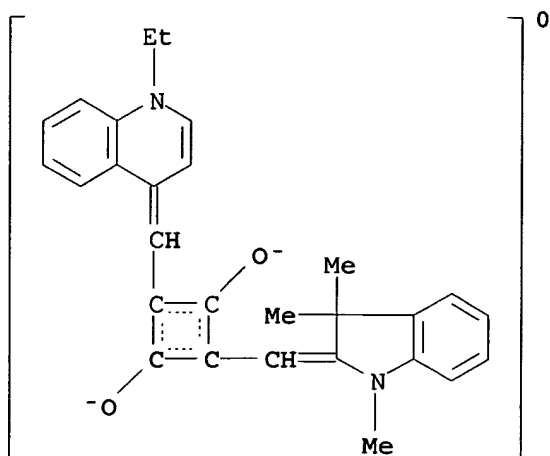


IT 156057-15-7P

(preparation and use in preparing photopolymerizable compns. for holog. and photolithog.)

RN 156057-15-7 HCAPLUS

CN Cyclobutenediylum, 1-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)methyl]-3-[(1-ethyl-4(1H)-quinolinylidene)methyl]-2,4-dihydroxy-, bis(inner salt) (9CI) (CA INDEX NAME)



- IC ICM G03C001-73  
 INCL 430281100  
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST photopolymerizable **compn** squarylium compd lithog plate; photoresist photopolymerizable **compn** squarylium compd; holog photopolymerizable **compn** squarylium compd  
 IT Photoresists  
   (photopolymerizable **compns.** containing addition-polymerizable compds., radical-producing agents, and squarylium compds. as)  
 IT Holography  
   (photopolymerizable **compns.** containing addition-polymerizable compds., radical-producing agents, and squarylium compds. for)  
 IT Lithographic plates  
   (photopolymerizable **compns.** containing addition-polymerizable compds., radical-producing agents, and squarylium compds. for preparation of)  
 IT Photoimaging materials  
   (photopolymerizable; containing addition-polymerizable compds., radical-producing agents, and squarylium compds.)  
 IT 135596-19-9 156057-17-9 159094-57-2  
   (photopolymerizable **compns.** for holog. and photolithog. containing)  
 IT 79-41-4D, Methacrylic acid, esters, polymers 3524-68-3, Pentaerythritol triacrylate 6542-67-2, 2,4,6-Tris(trichloromethyl)triazine  
   (photopolymerizable **compns.** for holog. and photolithog. containing squarylium compds. and)  
 IT 156057-15-7P 156057-31-7P 156099-24-0P 156764-74-8P  
   (preparation and use in preparing photopolymerizable **compns.** for holog. and photolithog.)  
 IT 91-22-5, Quinoline, reactions 118-12-7, 1,3,3-Trimethyl-2-methyleneindoline 605-59-4, N-Ethyllepidinium iodide 2892-63-9, 7478-69-5, 1,1-Bis(p-dimethylaminophenyl)ethylene 61699-62-5, 3,4-Diisopropoxy-3-cyclobutene-1,2-dione 155950-65-5, 1,3-Dihexyl-2-methylimidazo[4,5-b]iquinoxalinium tosylate 155950-67-7, 1,3-Dibutyl-2-methylimidazo[4,5-b]iquinoxalinium tosylate

(reaction in preparing squarylium compds. for photopolymerizable compns. for holog. and photolithog.)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L36 ANSWER 39 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:556650 HCAPLUS

DOCUMENT NUMBER: 127:234936

TITLE: Photopolymerization of acrylates with borate-based photoinitiators sensitive in the infrared

AUTHOR(S): Anon.

CORPORATE SOURCE: UK

SOURCE: Research Disclosure (1997), 400 (Aug.), P493-P495 (No. 40013)

CODEN: RSDSBB; ISSN: 0374-4353

PUBLISHER: Kenneth Mason Publications Ltd.

DOCUMENT TYPE: Journal; Patent

LANGUAGE: English

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RD 400013		19970810		

-----

RD 400013

19970810

PRIORITY APPLN. INFO.:

RD 1997-400013

19970810

AB Combination of a wide variety with borate salts with infra-red dyes and pigments affords highly reactive radical photoinitiators for coating compns. or emulsion polymerization active under visible broad band or monochromatic laser irradiation

IT 102185-03-5, IR 786

(IR 786; photopolymn. of acrylates with borate-based photoinitiators sensitive in the IR)

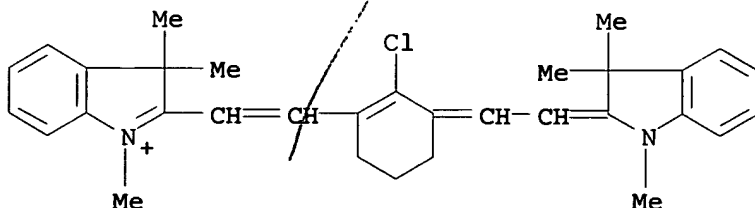
RN 102185-03-5 HCAPLUS

CN 3H-Indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,3,3-trimethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 69415-17-4

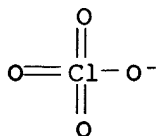
CMF C32 H36 Cl N2



CM 2

CRN 14797-73-0

CMF Cl O4



IT 53655-17-7, IR 140 (dye)

(photopolymn. of acrylates with borate-based  
photoinitiators sensitive in the IR)

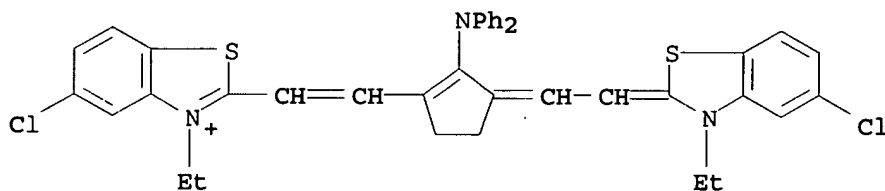
RN 53655-17-7 HCAPLUS

CN Benzothiazolium, 5-chloro-2-[2-[3-[(5-chloro-3-ethyl-2(3H)-  
benzothiazolylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-  
yl]ethenyl]-3-ethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 53655-16-6

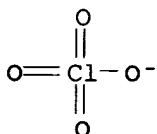
CMF C39 H34 Cl2 N3 S2



CM 2

CRN 14797-73-0

CMF Cl O4



CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 41, 42

ST boron compd IR dye photopolymn catalyst; acrylate polymn  
boron compd dye initiator

IT Polymerization catalysts

Polymerization catalysts

(photochem., radical; photopolymn. of acrylates with  
borate-based photoinitiators sensitive in the IR)

IT 102185-03-5, IR 786

(IR 786; photopolymn. of acrylates with borate-based  
photoinitiators sensitive in the IR)IT 4197-25-5, Ceres Black BN 7440-42-8D, Boron, compds., uses  
53655-17-7, IR 140 (dye) 191876-10-5 195215-36-2, KF

615PINA 195215-37-3, KF 628PINA 195215-38-4, KF 674PINA  
 195215-39-5, KF 810PINA  
 (photopolymer. of acrylates with borate-based  
**photoinitiators** sensitive in the IR)

L36 ANSWER 40 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1997:496514 HCAPLUS  
 DOCUMENT NUMBER: 127:115281  
 TITLE: Photosensitive **composition**  
 containing novel sensitizing dyes and  
**radical-generating** agent  
 INVENTOR(S): Katsuta, Ai; Takeyama, Toshihisa; Kawamura,  
 Tomonori; Koshizuka, Kunihiro  
 PATENT ASSIGNEE(S): Konica Co., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 41 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 09134008	A2	19970520	JP 1995-311640	1995 1107
PRIORITY APPLN. INFO.:			JP 1995-311640	1995 1107

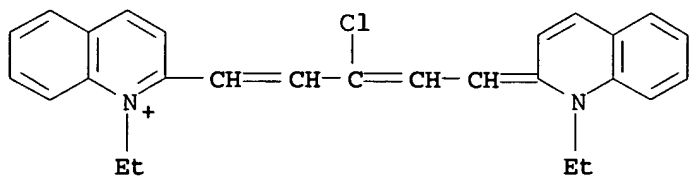
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT  
 \*

AB The photosensitive **composition** comprises (1)  $\geq 1$  dye  
 with  $630 \leq \lambda_{\max} \leq 739$  nm selected from I (W1 =  
 alkyl; Z1,2 = group of atoms for forming 5-7-membered  
 heterocyclyl; V1 = N, S, O; A = vinyl-based **polymeric**  
 substituent), II (R7-10 = halo, alkyl; R11-14 = H, halo, alkyl,  
 cyano, etc.; W2 = alkyl; Z3 = group of atoms for forming  
 5-7-membered heterocyclyl; Y- = counter anion; n, o = 0, integer  
 higher than 1;  $(n + o) \geq 1$ ), III (W3 = O, S; Z4,5 = group of  
 atoms for forming 5-7-membered heterocyclyl; p = 0, integer higher  
 than 1), and IV (A = O, S, Se, etc.; R15-19 = H, halo, cyano,  
 etc.), (2) an organic peroxide, (3) a diphenyliodonium salt, and (4)  
 a compound selected from M+[R20R21R22R23B-] (R20-23 = cyano, alkyl,  
 alkenyl, etc.; M+ = counter cation) and V (R24,25 = H, cyano,  
 alkyl, etc.; X = halo; Z6 = group of atoms for forming  
 5-7-membered heterocyclyl; D = N, O). The photosensitive  
**composition** may be used as a mask on a presensitized  
**lithog.** printing plate. The **photosensitive compn**  
 exhibited high sensitivity toward semiconductor lasers.

IT 64285-44-5 143313-92-2 192395-10-1  
 (photosensitive **composition** containing novel sensitizing dyes  
 and **radical-generating** agent)

RN 64285-44-5 HCAPLUS  
 CN Quinolinium, 2-[3-chloro-5-(1-ethyl-2(1H)-quinolinylidene)-1,3-pentadienyl]-1-ethyl-, bromide (9CI) (CA INDEX NAME)

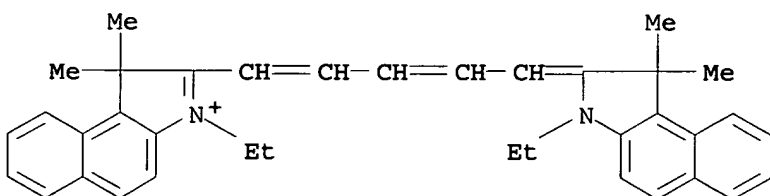


RN 143313-92-2 HCAPLUS  
 CN 1H-Benz[e]indolium, 3-ethyl-2-[5-(3-ethyl-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene)-1,3-pentadienyl]-1,1-dimethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 142382-81-8

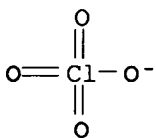
CMF C37 H39 N2



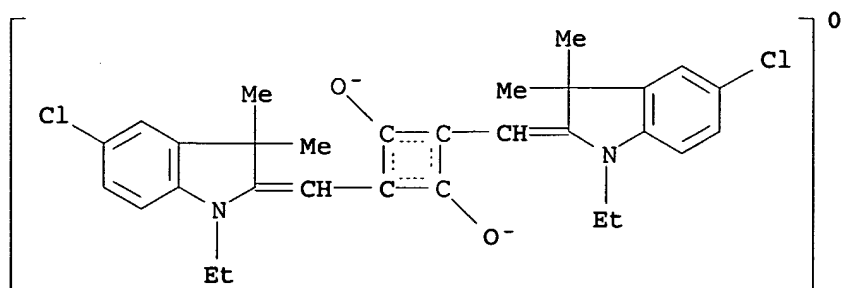
CM 2

CRN 14797-73-0

CMF Cl O4



RN 192395-10-1 HCAPLUS  
 CN Cyclobutenediylum, 1,3-bis[(5-chloro-1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)methyl]-2,4-dihydroxy-, bis(inner salt) (9CI) (CA INDEX NAME)



IC ICM G03F007-028  
 ICS G03C001-73; G03F007-004  
 CC 74-5 (Radiation Chemistry, Photochemistry, and  
**Photographic** and Other Reprographic Processes)  
 ST photosensitive **compn** sensitizing dye **radical**  
**generator**; presensitized lithog printing plate  
 mask **compn**  
 IT Photoimaging materials  
 (photosensitive **composition** containing novel sensitizing dyes  
 and **radical-generating** agent)  
 IT Photomasks (**lithographic** masks)  
 (photosensitive **composition** for)  
 IT **Lithographic** plates  
 (presensitized; photosensitive **composition** for)  
 IT 2156-29-8 4727-50-8 52902-47-3 64285-44-5  
 143313-92-2 169312-10-1 192331-94-5  
 192395-10-1  
 (photosensitive **composition** containing novel sensitizing dyes  
 and **radical-generating** agent)  
 IT 6542-67-2 58109-40-3 65859-86-1 188348-58-5  
 (**radical-generating** agent; photosensitive  
**composition** containing novel sensitizing dyes and  
**radical-generating** agent)

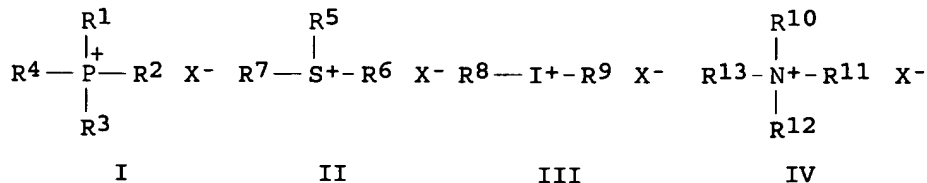
L36 ANSWER 41 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1997:480651 HCAPLUS  
 DOCUMENT NUMBER: 127:101775  
 TITLE: Photoradical generating agent,  
 photopolymerizable **composition**, and  
 process of presensitized **lithographic**  
 printing plate  
 INVENTOR(S): Nakayama, Noritaka  
 PATENT ASSIGNEE(S): Konica Co., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09134009	A2	19970520	JP 1995-291286	1995 1109

PRIORITY APPLN. INFO.: JP 1995-291286

1995  
1109

GI



AB In the photoradical generating agent containing an onium salt represented by I, II, III, and IV (R1-4, R10-12 = alkyl, aryl, aralkyl; R5-7 = alkyl, aryl; R8,9 = aryl; X- = counter ion), a **radical generating agent**, and carbon black, the onium salt and/or the **radical generating agent** is adsorbed on carbon black. The counter ion may be a halogen ion. The **radical generating agent** may be a bisimidazole derivative. The **composition** is used for a photosensitive layer of a presensitized lithog. printing plate, in which the photosensitive layer contains a compound having  $\geq 1$  ethylenic unsatd. bond, a binder, and the photoradical generating agent. The presensitized lithog. printing plate is exposed by a laser beam, and then unexposed areas of the protective layer and the photosensitive layer are eluted. A high concentration of the photoradical was generated by irradiating IR light.

IT 173474-43-6

(photopolymerizable **composition** in presensitized lithog. printing plate)

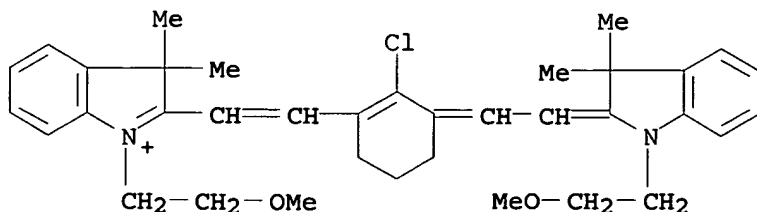
RN 173474-43-6 HCAPLUS

CN 3H-Indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-1-(2-methoxyethyl)-3,3-dimethyl-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-(2-methoxyethyl)-3,3-dimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 102185-06-8

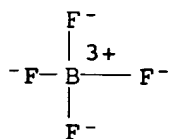
CMF C36 H44 Cl N2 O2



CM 2

CRN 14874-70-5

CMF B F4  
CCI CCS



IC ICM G03F007-029  
ICS C07F009-54; C08F002-50; G03F007-031; C07C381-12  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 35, 38  
ST photoradical generator presensitized lithog printing plate  
IT Lithographic plates  
(photopolymerizable composition in presensitized lithog. printing plate)  
IT Carbon black, uses  
(photopolymerizable composition in presensitized lithog. printing plate)  
IT 869-51-2, Tris(2-hydroxyethyl)sulfonium chloride 1643-19-2, Tetrabutylammonium bromide 3115-68-2, Tetrabutylphosphonium bromide 3462-97-3, 4-Methoxybenzyltriphenylphosphonium chloride 4189-82-6 5197-95-5, Benzyltriethylammonium bromide 5667-47-0 14937-42-9, Tetra(decyl)ammonium bromide 25316-59-0, Benzyltributylammonium bromide 58377-39-2  
(photopolymerizable composition in presensitized lithog. printing plate)  
IT 2256-48-6 12157-31-2 108961-97-3 109347-70-8 110930-60-4 173474-43-6  
(photopolymerizable composition in presensitized lithog. printing plate)  
IT 90-94-8 1707-68-2 82799-44-8 189515-41-1  
(photoradical generating agent in composition in presensitized lithog. printing plate)

L36 ANSWER 42 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1997:265561 HCAPLUS  
DOCUMENT NUMBER: 126:257074  
TITLE: Water-less lithographic plates  
INVENTOR(S): Bennett, Peter Andrew Reath; Smith, Carole-Anne  
PATENT ASSIGNEE(S): Horsell Graphic Images Limited, UK; Bennett, Peter Andrew Reath; Smith, Carole-Anne  
SOURCE: PCT Int. Appl., 27 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 9707430	A1	19970227	WO 1996-GB1974	1996

0813

W: AU, BR, CA, CN, GB, JP, MX, NZ, RU, US

RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC,  
NL, PT, SE

CA 2229536 AA 19970227 CA 1996-2229536

1996

0813

AU 9667475 A1 19970312 AU 1996-67475

1996

0813

EP 845116 A1 19980603 EP 1996-927771

1996

0813

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE  
CN 1192811 A 19980909 CN 1996-196256

1996

0813

JP 11119416 A2 19990430 JP 1998-75163

1996

0813

BR 9610224 A 19991221 BR 1996-10224

1996

0813

JP 2000513455 T2 20001010 JP 1997-509042

1996

0813

US 6187511 B1 20010213 US 1998-11436

1998

0211

PRIORITY APPLN. INFO.:

GB 1995-16694

A

1995

0815

JP 1997-509042

A3

1996

0813

WO 1996-GB1974

W

1996

0813

AB There is described a method of preparing a water-less lithog  
 . plate which comprises a support having an oleophilic surface,  
 there being coated on the support a mixture which comprises as one  
 component an ink-repellent and water-repellent polymer or a mixture  
 of such polymers or a polymer precursor, and as the other  
 essential component of the mixture a photosensitive or heat  
 sensitive **composition** selected from (a) an organic solvent soluble  
 diazo **composition** which is either light or heat sensitive,  
 (b) a photopolymer together with a sensitizer which is either  
 light or heat sensitive or (c) a mixture of a free-radically  
 polymerizable ethylenically unsatd. compound or compds. and a  
**photoinitiator** which is either heat or light sensitive,  
 the ratio of ink-repellent polymer to photosensitive or heat  
 sensitive **composition** (a), (b), or (c) in the mixture being  
 from 20-80 ink-repellent polymer to 80-20 photosensitive or heat  
 sensitive **composition** by weight, imagewise acting on exposing  
 the coating process mixture, developing the acted on mixture with the  
 appropriate developing solution depending on the **composition**  
 (a), (b), (c) used to remove the **composition** and the

water-repellent polymer in the unacted-on areas to reveal the oleophilic surface of the support in the unacted-on areas of the plate and leaving the acted on areas of the plate.

IT 188435-88-3

(sensitizer contained in coating **composition** for lithog. plate)

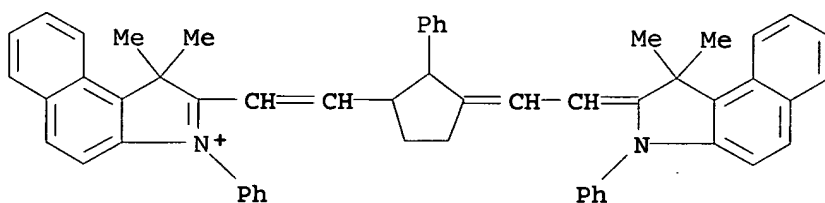
RN 188435-88-3 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[(1,3-dihydro-1,1-dimethyl-3-phenyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-phenylcyclopentyl]ethenyl]-1,1-dimethyl-3-phenyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 188435-87-2

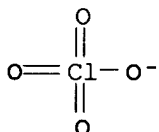
CMF C55 H49 N2



CM 2

CRN 14797-73-0

CMF Cl O4



IC ICM G03F007-004

ICS G03F007-075

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST water less lithog plate; ink repellent polymer

**lithog** plate

IT Polysiloxanes, processes

(Syl-off 7920; contained in coating **composition** for lithog. plate)

IT Polysiloxanes, processes

(di-Me; contained in coating **composition** for lithog. plate)

IT **Lithographic** plates

(having oleophilic surface coated with mixture of ink-repellent and water-repellent polymers and other components)

IT 188596-59-0, Syl-off 7922

(catalyst; curing agent contained in coating **composition** for lithog. plate)

IT 9016-00-6, Poly(dimethylsiloxane) 9016-00-6D, Polydimethylsiloxane, vinyl dimethyl-terminated 25068-38-6, Epikote 1004

31900-57-9, Poly(dimethylsiloxane) 31900-57-9D, Polydimethyl  
siloxane, vinyl dimethyl-terminated 79586-36-0, Asahiguard A.G.  
550 153743-82-9, DSO 19 156118-35-3, Dimethyl  
silanediol-methyl silandiol copolymer 169314-57-2, Zonyl 8070  
188596-57-8, RO-C 0C15

(contained in coating **composition** for lithog.  
plate)

IT 492-22-8, Thioxanthone **188435-88-3**  
(sensitizer contained in coating **composition** for  
lithog. plate)

L36 ANSWER 43 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1997:253582 HCAPLUS  
DOCUMENT NUMBER: 126:244890  
TITLE: Photopolymerizing **composition**,  
image-forming material, **radical**  
**generation**, photosensitive material  
for preparing **lithographic** plate,  
and preparation of **lithographic**  
plate  
INVENTOR(S): Nakayama, Noritaka  
PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09034110	A2	19970207	JP 1995-180086	1995 0717

PRIORITY APPLN. INFO.: JP 1995-180086

1995  
0717

OTHER SOURCE(S): MARPAT 126:244890

AB The title **composition** contains a polymerizing compound,  $\geq 1$   
onium salt selected from R1P+R2R3R4 X-, R5S+R6R7 X-, R8I+R9 X-,  
and R10N+R11R12R13 X- (R1-4, R10-13 = alkyl, aryl, aralkyl, R1-4  
or R10-13 may form a ring; R5-7 = alkyl, aryl, R5-7 may form a  
ring; R8, R9 = aryl; X- = counter anion), a light-heat-converting  
element, and a **radical-generating** agent. The  
image-forming material comprises the **composition** containing the  
onium salt in which the counter anion is Cl- or Br-.  
**Radicals** are generated by irradiation of the  
**composition** using IR rays. The photosensitive material  
comprises a hydrophilic support with coatings of a photosensitive  
layer containing a compound having  $\geq 1$  ethylenic unsatd. bond, a  
binder,  $\geq 1$  of the above onium salts, a light-heat-  
converting element, and a **radical-generating**  
agent and a protective layer. The material is imagewise exposed  
under semiconductor laser scanning followed by removing the  
protective layer and the unexposed areas of the photosensitive  
layer to give a **lithog.** printing plate. The  
**composition** provides high sensitive and high resolution images  
using IR rays and shows good storage stability.

IT 173474-43-6  
 (light-heat conversion agent; photosensitive lithog.  
 plate prepared from **composition** containing onium compound by  
 semiconductor laser scanning)

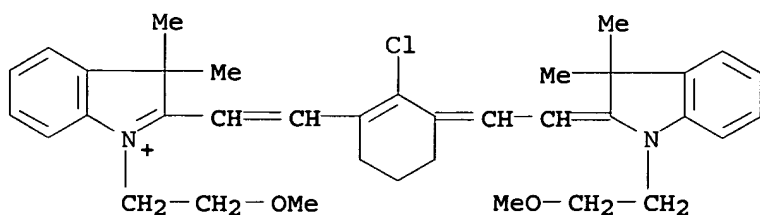
RN 173474-43-6 HCAPLUS

CN 3H-Indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-1-(2-methoxyethyl)-3,3-  
 dimethyl-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-  
 1-(2-methoxyethyl)-3,3-dimethyl-, tetrafluoroborate(1-) (9CI) (CA  
 INDEX NAME)

CM 1

CRN 102185-06-8

CMF C36 H44 Cl N2 O2

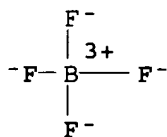


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IC ICM G03F007-029

ICS B41C001-00; G03F007-00; G03F007-004; G03F007-027;  
 G03F007-031; G03F007-20

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and  
 Other Reprographic Processes)

ST photopolymerizable **compn** onium salt; sulfonium salt  
 photopolymerizable **compn**; ammonium salt  
 photopolymerizable **compn**; light heat conversion agent;  
 radical initiator photopolymerizable **compn**;  
 photosensitive lithog plate onium salt; semiconductor  
 laser scanning lithog plate; IR ray radical  
**generator**

IT Phosphonium compounds  
 Quaternary ammonium compounds, uses  
 (photosensitive lithog. plate prepared from  
**composition** containing onium compound by semiconductor laser  
 scanning)

IT Lithographic plates  
 (photosensitive; photosensitive lithog. plate prepared

from **composition** containing onium compound by semiconductor laser scanning)

IT 12157-31-2 108961-97-3 109347-70-8 110930-60-4  
173474-43-6

(light-heat conversion agent; photosensitive **lithog.** plate prepared from **composition** containing onium compound by semiconductor laser scanning)

IT 56-37-1, Benzyltriethylammonium chloride 869-51-2 1643-19-2, Tetrabutylammonium bromide 3115-68-2, Tetrabutylphosphonium bromide 3462-97-3 4189-82-6, Diphenyl(p-methylphenyl)sulfonium bromide 5667-47-0 14866-34-3, Tetradodecylammonium bromide 25316-59-0, Benzyltributylammonium bromide 58377-39-2, Bis(P-tert-butylphenyl)iodonium bromide (photosensitive **lithog.** plate prepared from **composition** containing onium compound by semiconductor laser scanning)

IT 1707-68-2 29777-36-4 71002-23-8 188348-58-5  
(radical initiator; photosensitive **lithog.** plate prepared from **composition** containing onium compound by semiconductor laser scanning)

L36 ANSWER 44 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1996:422455 HCAPLUS

DOCUMENT NUMBER: 125:71871

TITLE: Photopolymerizable **composition** containing squarylium compound

INVENTOR(S): Yamaoka, Tsuguo; Koseki, Kenichi; Shimizu, Ikuo; Toyoda, Hiroshi; Kinoshita, Hirotaka; Matsushita, Shoshiro

PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 25 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9609289	A1	19960328	WO 1995-JP1894	1995 0920
W: CA, JP, US RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2176931	AA	19960328	CA 1995-2176931	1995 0920
EP 729945	A1	19960904	EP 1995-932192	1995 0920
EP 729945	B1	20020227		
R: BE, CH, DE, FR, GB, LI, NL				
JP 3404046	B2	20030506	JP 1996-510752	1995 0920
US 5681685	A	19971028	US 1996-648136	1996 0521

PRIORITY APPLN. INFO.:

JP 1994-226568

A

1994  
0921

WO 1995-JP1894

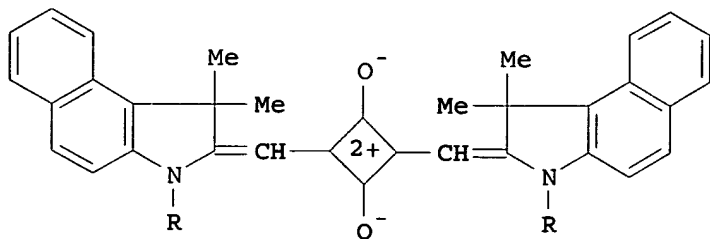
W

1995  
0920

OTHER SOURCE(S):

MARPAT 125:71871

GI



I

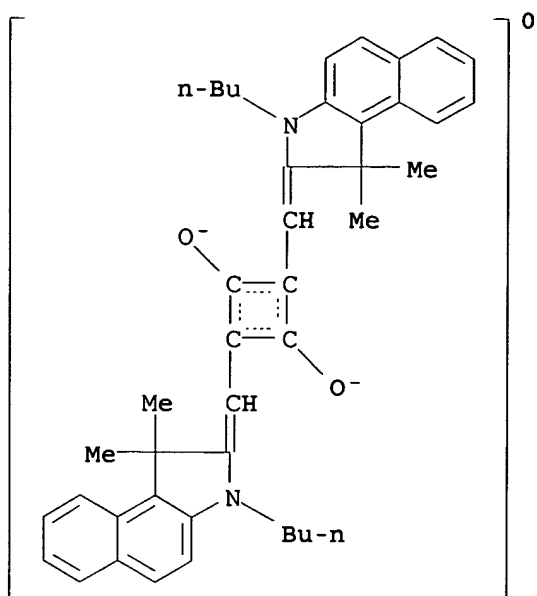
AB A photopolymerizable **composition** comprises a squarylium compound represented by I, a free-radical **generator** and an addition-polymerizable compound having at least one ethylenic unsatn., wherein R represents C2-C8 alkyl. This **composition** can be used for presensitized plates and dry film resists.

IT 125597-36-6P 138496-68-1P 178563-74-1P  
178563-75-2P 178563-76-3P 178563-77-4P  
178563-78-5P 178563-79-6P

(polymerizable **composition** containing)

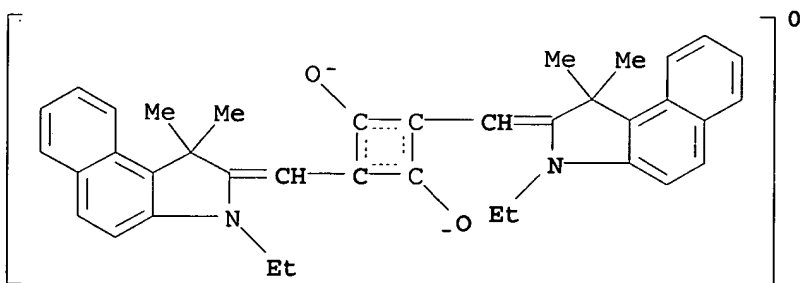
RN 125597-36-6 HCAPLUS

CN Cyclobutenediylum, 1,3-bis[(3-butyl-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene)methyl]-2,4-dihydroxy-, bis(inner salt)  
(9CI) (CA INDEX NAME)



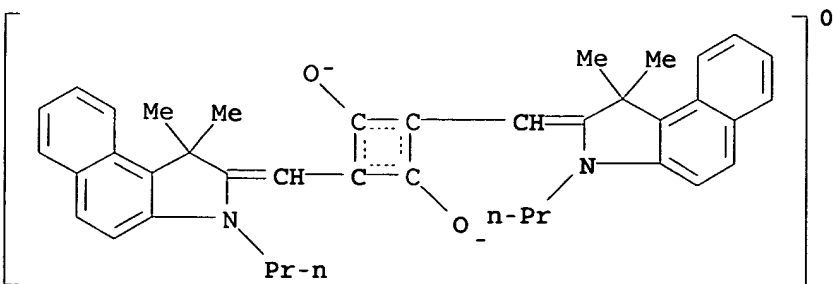
RN 138496-68-1 HCAPLUS

CN Cyclobutenediylum, 1,3-bis[(3-ethyl-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene)methyl]-2,4-dihydroxy-, bis(inner salt)  
(9CI) (CA INDEX NAME)



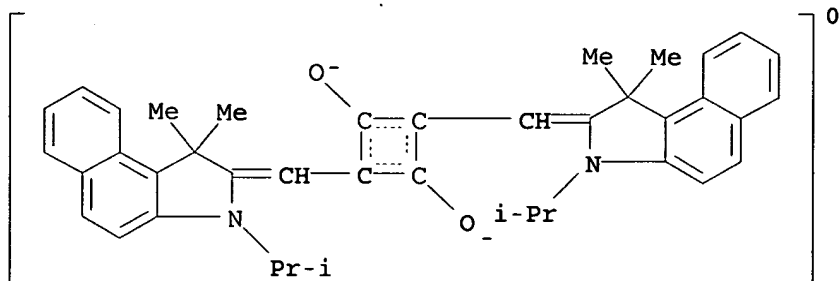
RN 178563-74-1 HCAPLUS

CN Cyclobutenediylum, 1,3-bis[(1,3-dihydro-1,1-dimethyl-3-propyl-2H-benz[e]indol-2-ylidene)methyl]-2,4-dihydroxy-, bis(inner salt)  
(9CI) (CA INDEX NAME)



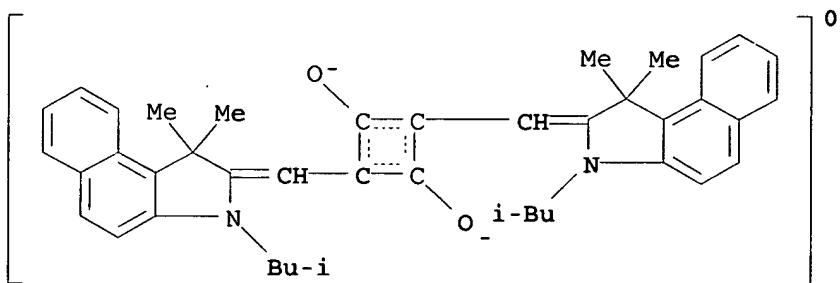
RN 178563-75-2 HCAPLUS

CN Cyclobutenediylum, 1,3-bis[[1,3-dihydro-1,1-dimethyl-3-(1-methylethyl)-2H-benz[e]indol-2-ylidene)methyl]-2,4-dihydroxy-, bis(inner salt) (9CI) (CA INDEX NAME)



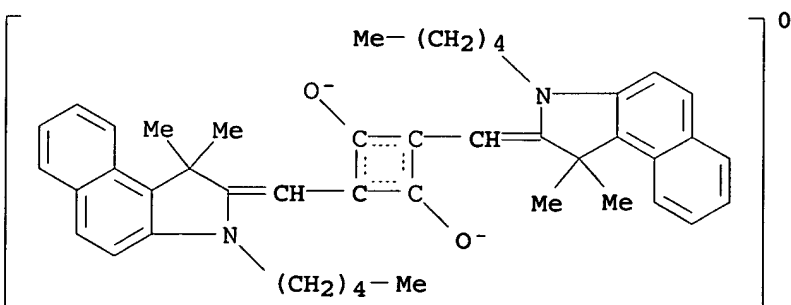
RN 178563-76-3 HCAPLUS

CN Cyclobutenediylum, 1,3-bis[[1,3-dihydro-1,1-dimethyl-3-(2-methylpropyl)-2H-benz[e]indol-2-ylidene)methyl]-2,4-dihydroxy-, bis(inner salt) (9CI) (CA INDEX NAME)



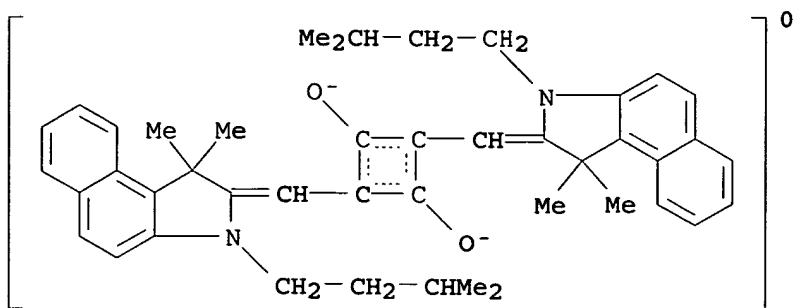
RN 178563-77-4 HCAPLUS

CN Cyclobutenediylum, 1,3-bis[[1,3-dihydro-1,1-dimethyl-3-pentyl-2H-benz[e]indol-2-ylidene)methyl]-2,4-dihydroxy-, bis(inner salt) (9CI) (CA INDEX NAME)



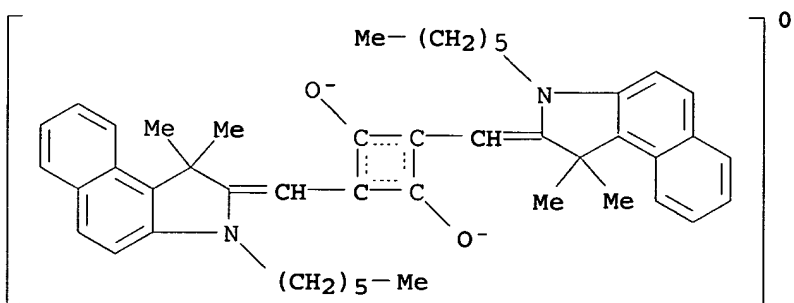
RN 178563-78-5 HCAPLUS

CN Cyclobutenediylum, 1,3-bis[[1,3-dihydro-1,1-dimethyl-3-(3-methylbutyl)-2H-benz[e]indol-2-ylidene)methyl]-2,4-dihydroxy-, bis(inner salt) (9CI) (CA INDEX NAME)



RN 178563-79-6 HCAPLUS

CN Cyclobutenediylum, 1,3-bis[(3-hexyl-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene)methyl]-2,4-dihydroxy-, bis(inner salt)  
(9CI) (CA INDEX NAME)



IC ICM C07D209-60

ICS C08F002-48

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST squarylium compd polymerizable compn resist

IT Lithographic plates

Resists

(photopolymerizable composition containing squarylium compound)

IT Onium compounds

(squarylium, polymerizable composition containing)

IT 125597-36-6P 138496-68-1P 178563-74-1P

178563-75-2P 178563-76-3P 178563-77-4P

178563-78-5P 178563-79-6P

(polymerizable composition containing)

L36 ANSWER 45 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1995:543437 HCAPLUS

DOCUMENT NUMBER: 122:303100

TITLE: Material and method for thermal transfer image formation

INVENTOR(S): Takeyama, Toshihisa; Miura, Akio; Komamura, Tawara

PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 40 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06262861	A2	19940920	JP 1993-52494	1993 0312
PRIORITY APPLN. INFO.:				1993 0312

AB The title image forming material comprises on its support a coloring layer containing a thermal diffusive dye having a **polymerizable** unsatd. double bond, a compound made up of a cationic dye and a borate anion, and/or another compound made up of a transition metal coordination complex and a borate anion. An image is formed by imagewise exposing the above image forming material to light to **polymerize** the thermal diffusive dye, placing a dye receptor over the image forming material, and applying heat and pressure to transfer the thermal diffusive dye to the dye receptor. High resolution and good color reproducibility are achieved.

IT 141714-63-8  
(photopolymn. initiator for thermal transfer recording material)

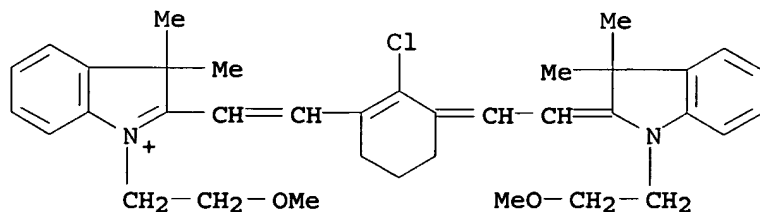
RN 141714-63-8 HCAPLUS

CN 3H-Indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-1-(2-methoxyethyl)-3,3-dimethyl-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-(2-methoxyethyl)-3,3-dimethyl-, (T-4)-butyltriphenylborate(1-)  
(9CI) (CA INDEX NAME)

CM 1

CRN 102185-06-8

CMF C36 H44 Cl N2 O2

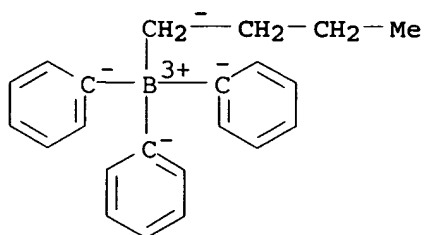


CM 2

CRN 47252-39-1

CMF C22 H24 B

CCI CCS



IC ICM B41M005-30  
 ICS B41M005-26; G03F007-004; G03F007-027; G03F007-029; G03F007-26  
 CC 74-7 (Radiation Chemistry, Photochemistry, and  
**Photographic and Other Reprographic Processes**)  
 IT 141714-54-7 141714-63-8 163021-54-3 163046-02-4  
 (photopolymn. initiator for **thermal**  
 transfer recording material)

L36 ANSWER 46 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1995:394841 HCAPLUS  
 DOCUMENT NUMBER: 122:174586  
 TITLE: Dye image-receiving material of  
 thermal-transfer recording material and  
 formation of image by using same  
 INVENTOR(S): Takeyama, Toshihisa; Miura, Akio; Nakayama,  
 Noritaka; Komamura, Tawara  
 PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 31 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06270569	A2	19940927	JP 1993-66732	1993 0325
JP 3385477	B2	20030310	JP 1993-66732	1993 0325

PRIORITY APPLN. INFO.: JP 1993-66732

AB In the dye image-receiving material comprising an ink layer containing a thermally diffusive dye, a dye containing an ethylenic unsatd. double bond, and a dye-releasing substance, a dye-receiving layer of the material contains a **polymerization** initiator as an essential component. Formation of an image uses light and/or thermal energy to initiate **polymerization**

IT 141714-63-8  
 (polymerization initiator; thermal  
 -transfer recording material)

RN 141714-63-8 HCAPLUS

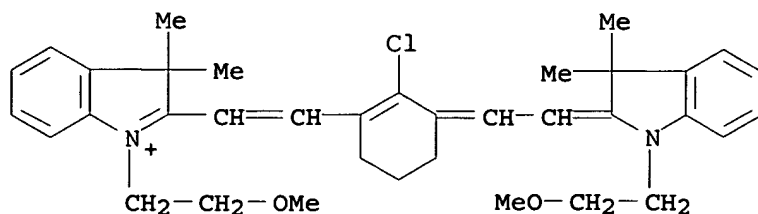
CN 3H-Indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-1-(2-methoxyethyl)-3,3-dimethyl-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-(2-methoxyethyl)-3,3-dimethyl-, (T-4)-butyltriphenylborate(1-)

(9CI) (CA INDEX NAME)

CM 1

CRN 102185-06-8

CMF C36 H44 Cl N2 O2

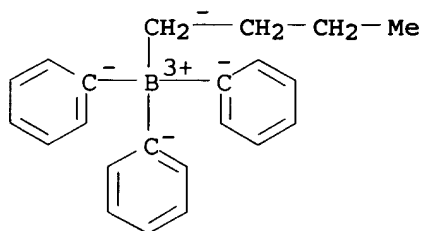


CM 2

CRN 47252-39-1

CMF C22 H24 B

CCI CCS



IC ICM B41M005-40

ICS G03C008-40

CC 74-10 (Radiation Chemistry, Photochemistry, and  
Photographic and Other Reprographic Processes)ST polymn initiator dye image receptor; thermal transfer  
recording materialIT Polymerization catalysts  
(photochem., thermal-transfer recording materials)IT Polymerization catalysts  
(thermal, thermal-transfer recording materials)

IT 15243-31-9 120307-06-4 141714-54-7 141714-63-8

153177-34-5 161376-52-9

(polymerization initiator; thermal  
-transfer recording material)

L36 ANSWER 47 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1994:689655 HCAPLUS

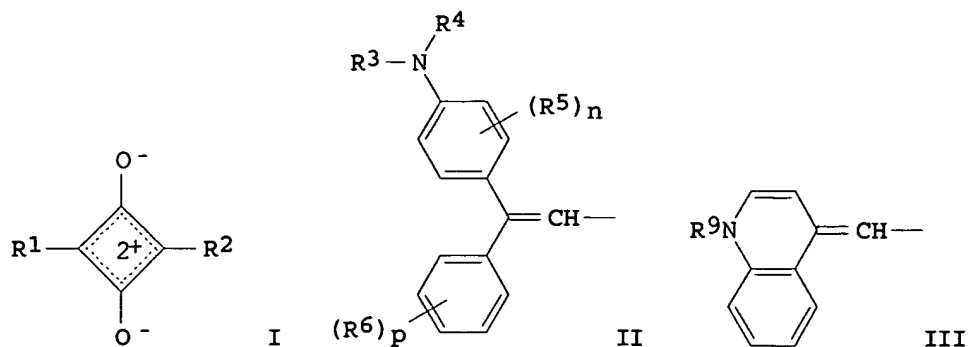
DOCUMENT NUMBER: 121:289655

TITLE: Photopolymerizable composition  
containing squarainesINVENTOR(S): Yamaoka, Tsuguo; Koseki, Kenichi; Obara,  
Mitsuharu; Shimizu, Ikuo; Ito, Yukiyoski;  
Kawato, Hitoshi

PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 37 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
WO 9401806	A1	19940120	WO 1993-JP932	1993 0707
W: CA, JP, US RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 611997	A1	19940824	EP 1993-914964	1993 0707
EP 611997	B1	20030212		
R: CH, DE, FR, GB, LI				
EP 1113335	A1	20010704	EP 2001-106388	1993 0707
EP 1113335	B1	20031126		
R: CH, DE, FR, GB, LI				
JP 3202989	B2	20010827	JP 1994-503173	1993 0707
CA 2118604	C	20040706	CA 1993-2118604	1993 0707
PRIORITY APPLN. INFO.:				
			JP 1992-185224	A 1992 0713
			EP 1993-914964	A3 1993 0707
			WO 1993-JP932	W 1993 0707

GI



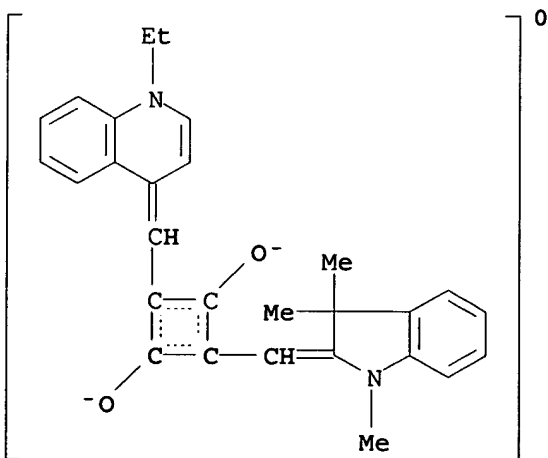
AB The title photopolymerizable **composition** contains an addition-polymerizable compound having  $\geq 1$  ethylenically unsatd. double bond (s), a free-radical generator, and a squarylium compound I [R1, R2 = II (R3, 4 = H, alkyl, aryl, aralkyl; R5 = halo, alkyl, alkoxy, nitro, OH; n = 0-4; when n = 2-4, R5 may be the same or different; R6 = R5, CN, trifluoromethyl, NR7R8; R7, R8 = R3; p = 0-5, when p = 2-5, R6 may be the same or different), III (R9 = alkyl), etc.]. The **composition** is highly sensitive to visible and near-IR rays, especially, a He-Ne laser, a light-emitting diode, a semiconductor laser, etc., each emitting light having a wavelength range  $>600$  nm; the **composition** is useful as the material of holograms, presensitized lithog. plates for laser direct platemaking, dry film resists, digital proof, photosensitive microcapsules, etc.

IT 156057-15-7 156057-17-9

(preparation of squaraines for photopolymerizable **composition** highly sensitive to visible and near-IR rays)

RN 156057-15-7 HCAPLUS

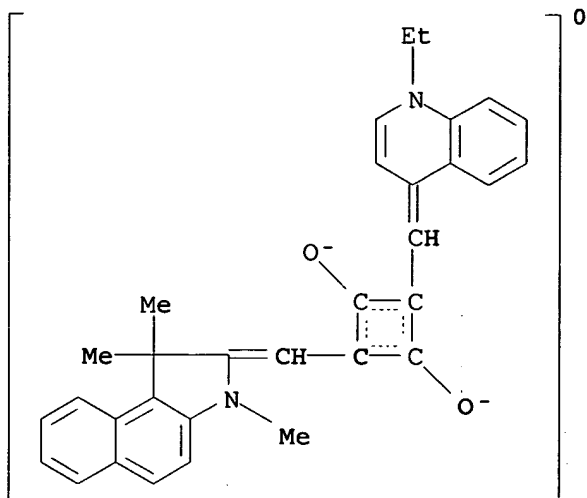
CN Cyclobutenediylum, 1-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)methyl]-3-[(1-ethyl-4(1H)-quinolinyliidene)methyl]-2,4-dihydroxy-, bis(inner salt) (9CI) (CA INDEX NAME)



RN 156057-17-9 HCAPLUS

CN Cyclobutenediylum, 1-[(1,3-dihydro-1,1,3-trimethyl-2H-

benz[e]indol-2-ylidene)methyl]-3-[(1-ethyl-4(1H)-quinolinylydene)methyl]-2,4-dihydroxy-, bis(inner salt) (9CI) (CA INDEX NAME)



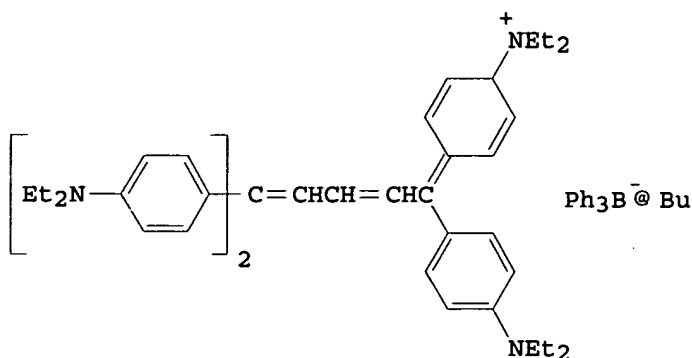
IC ICM G03F007-031  
 CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST near IR photopolymg **compn** squaraine  
 IT Resists  
 (photo-, dry-film; photopolymerizable **composition** highly sensitive to visible and near-IR rays for)  
 IT Photoimaging **compositions** and processes  
 (photopolymerizable, photopolymerizable **composition** highly sensitive to visible and near-IR rays)  
 IT **Lithographic** plates  
 (presensitized, photopolymerizable **composition** highly sensitive to visible and near-IR rays for)  
 IT 3524-68-3, Pentaerythritol triacrylate 6542-67-2, 2, 4, 6-Tris(trichloromethyl)-s-triazine  
 (photopolymerizable **composition** highly sensitive to visible and near-IR rays)  
 IT 156057-15-7 156057-17-9 159094-53-8  
 159094-54-9 159094-55-0 159094-56-1  
 (preparation of squaraines for photopolymerizable **composition** highly sensitive to visible and near-IR rays)  
 IT 135596-19-9 159094-57-2  
 (squaraines for photopolymerizable **composition** highly sensitive to visible and near-IR rays)

L36 ANSWER 48 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1994:311681 HCAPLUS  
 DOCUMENT NUMBER: 120:311681  
 TITLE: Thermal recording materials for infrared laser recording  
 INVENTOR(S): Fukushige, Juichi  
 PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent

LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05318909	A2	19931203	JP 1992-123679	1992 0515
PRIORITY APPLN. INFO.:			JP 1992-123679	1992 0515

GI



AB The materials for IR laser recording are prepared by coating, on a support, an electron-donating colorless dye-containing microcapsules, and a solution containing a photohardenable composition comprising a **polymerizable** group-containing electron-accepting compound and a photopolymer. initiator which is a near IR-absorbing **polymn** . initiator with photosensitivity at  $\geq 600$  nm. The materials have high whiteness backgrounds and provide high quality images by IR laser beam exposure followed by heat development. Thus, a PET film was coated with a composition containing 3,3-bis(1-octyl-2-methylindol-3-yl)phthalide-containing microcapsules, 6-methacryloyloxyhexyl 3-chloro-4-hydroxybenzoate, and IR 820B (I) and with a protective layer to give a thermal recording sheet.

IT 123809-91-6  
 (photopolymer. initiator, IR-sensitive thermal recording material containing)

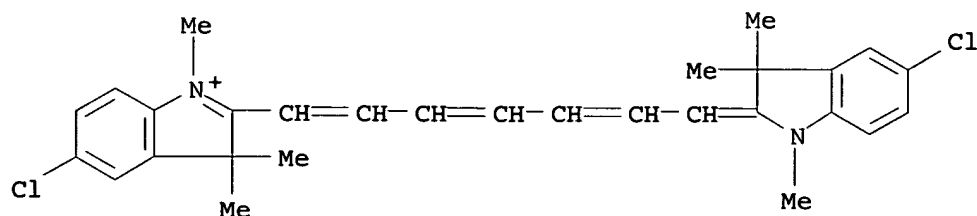
RN 123809-91-6 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[7-(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 95415-19-3

CMF C29 H31 Cl2 N2

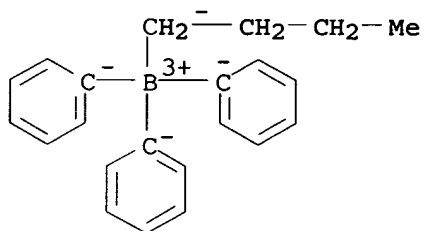


CM 2

CRN 47252-39-1

CMF C22 H24 B

CCI CCS



IC ICM B41M005-26

ICS B41M005-30

CC 74-6 (Radiation Chemistry, Photochemistry, and  
Photographic and Other Reprographic Processes)IT Printing, nonimpact  
(thermal, IR-sensitive, materials for, containing near IR-absorbing  
polymerization initiator)IT 123809-91-6  
(photopolymn. initiator, IR-sensitive thermal  
recording material containing)IT 143129-14-0, 3-Chloro-4-hydroxybenzoic acid 6-methacryloyloxyhexyl  
ester 149431-93-6, 2-Chloro-4-(6-methacryloyloxyhexylsulfonyl)ph  
enol(polymerizable electron-accepting compound,  
IR-sensitive thermal recording material using)

L36 ANSWER 49 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1994:120748 HCAPLUS

DOCUMENT NUMBER: 120:120748

TITLE: Photopolymerizable composition

INVENTOR(S): Nagasaki, Hideki; Ohta, Katsuko

PATENT ASSIGNEE(S): Mitsubishi Kasei Corp., Japan

SOURCE: Eur. Pat. Appl., 13 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.

KIND

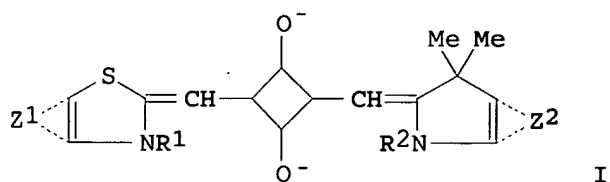
DATE

APPLICATION NO.

DATE

EP 557555	A1	19930901	EP 1992-103292	1992 0226
EP 557555	B1	19950920		
R: DE, FR, GB, NL				
JP 04031863	A2	19920204	JP 1990-138771	1990 0529
JP 2881966	B2	19990412		
PRIORITY APPLN. INFO.:			JP 1990-138771	1990 0529

OTHER SOURCE(S): MARPAT 120:120748  
GI



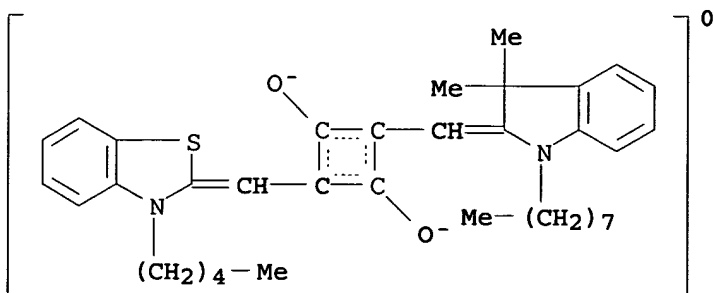
AB The title composition comprises an addition **polymerizable** monomer and a photopolymerization initiator system where the initiator system comprises a squarylium compound I [R1, R2 = alkyl, aryl; Z1, Z2 = benzene or naphthalene ring] and a s-triazine compound having  $\geq 1$  halogenated Me group. The initiator system provides improved solubility and spectral sensitivity.

IT 145128-44-5 145128-45-6 145128-46-7  
145128-47-8

(photoinitiator system containing)

RN 145128-44-5 HCAPLUS

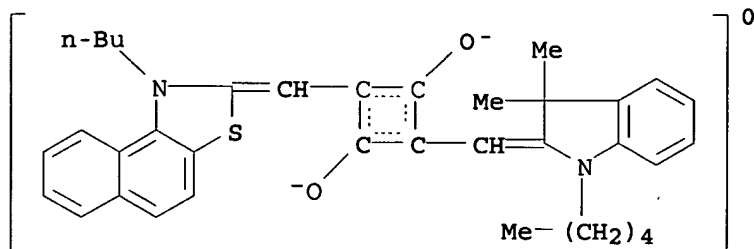
CN Cyclobutenediylum, 1-[(1,3-dihydro-3,3-dimethyl-1-octyl-2H-indol-2-ylidene)methyl]-2,4-dihydroxy-3-[(3-pentyl-2(3H)-benzothiazolylidene)methyl]-, bis(inner salt) (9CI) (CA INDEX NAME)



RN 145128-45-6 HCAPLUS

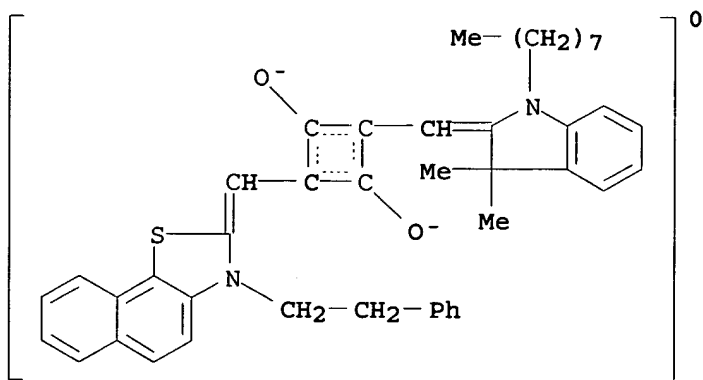
CN Cyclobutenediylum, 1-[(1-butyl-naphtho[1,2-d]thiazol-2(1H)-

ylidene)methyl]-3-[(1,3-dihydro-3,3-dimethyl-1-pentyl-2H-indol-2-ylidene)methyl]-2,4-dihydroxy-, bis(inner salt) (9CI) (CA INDEX NAME)



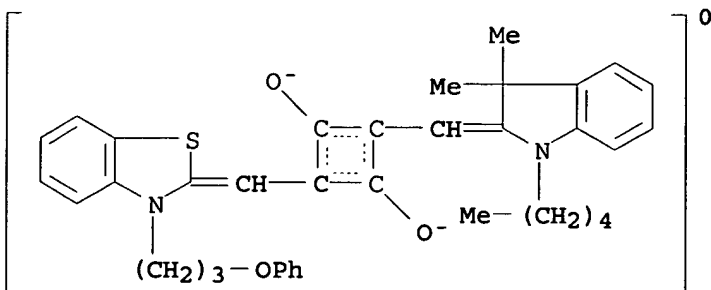
RN 145128-46-7 HCAPLUS

CN Cyclobutenediylum, 1-[(1,3-dihydro-3,3-dimethyl-1-octyl-2H-indol-2-ylidene)methyl]-2,4-dihydroxy-3-[[3-(2-phenylethyl)naphtho[2,1-d]thiazol-2(3H)-ylidene]methyl]-, bis(inner salt) (9CI) (CA INDEX NAME)



RN 145128-47-8 HCAPLUS

CN Cyclobutenediylum, 1-[(1,3-dihydro-3,3-dimethyl-1-pentyl-2H-indol-2-ylidene)methyl]-2,4-dihydroxy-3-[[3-(3-phenoxypropyl)-2(3H)-benzothiazolylidene]methyl]-, bis(inner salt) (9CI) (CA INDEX NAME)



IC ICM C08F002-50

ICS G03F007-029  
 CC 74-4 (Radiation Chemistry, Photochemistry, and  
**Photographic and Other Reprographic Processes**)  
 Section cross-reference(s): 35  
 IT **Polymerization** catalysts  
 (photochem., containing squarylium compds. and halogenated Me  
 s-triazines)  
 IT 949-42-8 5516-47-2 6542-67-2, 2,4,6-Tris(trichloromethyl)-s-  
 triazine 24504-22-1 24687-55-6, 2,4,6-Tris(tribromomethyl)-s-  
 triazine 145128-44-5 145128-45-6  
 145128-46-7 145128-47-8  
 (photoinitiator system containing)

L36 ANSWER 50 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1994:42039 HCAPLUS  
 DOCUMENT NUMBER: 120:42039  
 TITLE: Volume holographic film, manufacture thereof,  
 and window using same  
 INVENTOR(S): Koorishima, Tomonori; Tanabe, Yuzuru  
 PATENT ASSIGNEE(S): Asahi Glass Co Ltd, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 05046061	A2	19930226	JP 1991-233859	1991 0821
PRIORITY APPLN. INFO.: JP 1991-233859				1991 0821

AB A volume holog. film, which has a layered structure with cyclically  
 changing refractive indexes, is patterned and hardened by  
 interference between 2 light beams having the same phase focused  
 on the film, which comprises a **radical polymerization**  
 photoinitiator made of a quaternary ammonium anion and a borate  
 cation and a **polymerizable** organic compound as essential  
 components. The manufacture of the holog. film is claimed. The title  
 window uses a volume holog. film capable of reflecting IR light and  
 transmitting visible light.

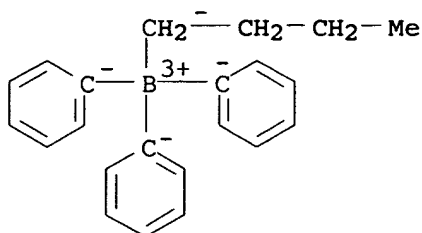
IT 141714-60-5  
 (radical polymerization photoinitiator,  
 manufacture of volume holog. film using)

RN 141714-60-5 HCAPLUS

CN Quinolinium, 1-ethyl-2-[7-(1-ethyl-2(1H)-quinolinylidene)-1,3,5-  
 heptatrienyl]-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX  
 NAME)

CM 1

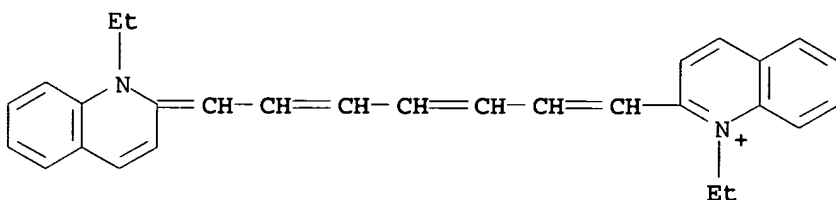
CRN 47252-39-1  
 CMF C22 H24 B  
 CCI CCS



CM 2

CRN 37069-61-7

CMF C29 H29 N2



IC ICM G03H001-02  
 ICS G03F007-004; G03F007-027; G03F007-029; G03F007-031  
 CC 74-8 (Radiation Chemistry, Photochemistry, and  
**Photographic** and Other Reprographic Processes)  
 ST vol holog film **polymn** compn; interference pattern  
**polymn** compn hardening; window vol holog film  
 IT 141714-60-5  
 (radical polymerization photoinitiator,  
 manufacture of volume holog. film using)

L36 ANSWER 51 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1994:42038 HCAPLUS

DOCUMENT NUMBER: 120:42038

TITLE: Volume holographic film, manufacture thereof,  
and window using same

INVENTOR(S): Koorishima, Tomonori

PATENT ASSIGNEE(S): Asahi Glass Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05046060	A2	19930226	JP 1991-233858	1991

1991

0821

1991

PRIORITY APPLN. INFO.:

JP 1991-233858

0821

AB A volume holog. film, which has a layered structure with cyclically changing refractive indexes, is patterned and hardened by interference between 2 light beams having the same phase focused on the film, which comprises a **radical polymerization** photoinitiator made of a quaternary ammonium anion and a borate cation, a **polymerizable** organic compound, and a liquid crystal as essential components. The manufacture of the holog. film is claimed. A window using the volume holog. film is also claimed.

IT 141714-60-5

(radical polymerization photoinitiator,  
manufacture of volume holog. film using)

RN 141714-60-5 HCAPLUS

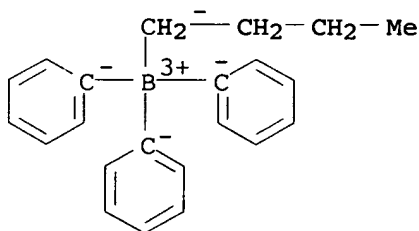
CN    Quinolinium, 1-ethyl-2-[7-(1-ethyl-2(1H)-quinolinylidene)-1,3,5-heptatrienyl]-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 47252-39-1

CMF C22 H24 B

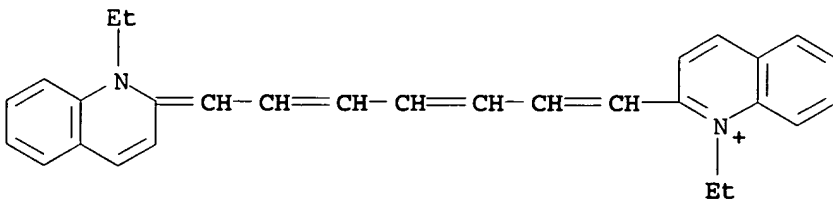
CCI CCS



CM 2

CRN 37069-61-7

CMF C29 H29 N2



IC ICM G03H001-02

ICS G03F007-004; G03F007-027; G03F007-029; G03F007-031

CC 74-8 (Radiation Chemistry, Photochemistry, and  
Photographic and Other Reprographic Processes)

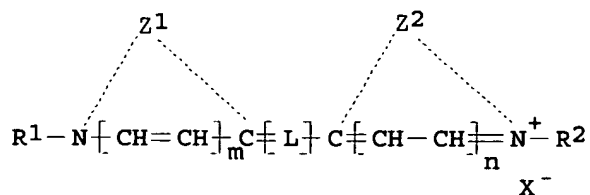
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ST  vol holog film polymn compn; interference pattern
    polymn compn hardening; window vol holog film
```

IT 141714-60-5

(radical polymerization photoinitiator,

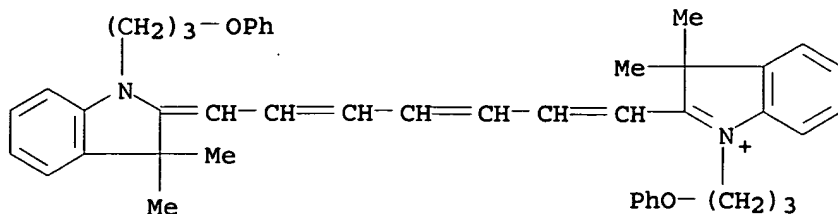
L36 ANSWER 52 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1992:623091 HCAPLUS  
DOCUMENT NUMBER: 117:223091  
TITLE: Photopolymerizable composition  
INVENTOR(S): Nagasaka, Hideki; Ota, Katsuko  
PATENT ASSIGNEE(S): Mitsubishi Kasei Corp., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

OTHER SOURCE(S) : MARPAT 117:223091  
GI



IT 144207-13-6 144230-80-8  
(photoinitiator, photopolymerizable composition containing)

RN 144207-13-6 HCAPLUS  
 CN 3H-Indolium, 2-[7-[1,3-dihydro-3,3-dimethyl-1-(3-phenoxypropyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-1-(3-phenoxypropyl)-, bromide (9CI) (CA INDEX NAME)

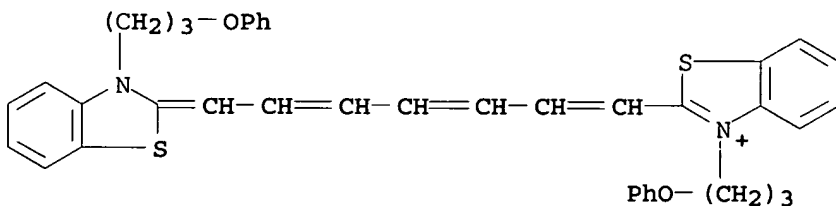


● Br<sup>-</sup>

RN 144230-80-8 HCAPLUS  
 CN Benzothiazolium, 3-(3-phenoxypropyl)-2-[7-[3-(3-phenoxypropyl)-2(3H)-benzothiazolylidene]-1,3,5-heptatrienyl]-, 2-naphthalenesulfonate (9CI) (CA INDEX NAME)

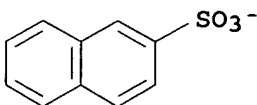
CM 1

CRN 144230-79-5  
 CMF C39 H37 N2 O2 S2



CM 2

CRN 16023-36-2  
 CMF C10 H7 O3 S



IC ICM G03F007-031  
 CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT Polymerization catalysts  
 (photochem., cyanine dye and s-triazine compound as)  
 IT 949-42-8 3599-76-6 3712-60-5 5516-51-8 24687-55-6,  
 2,4,6-Tris(tribromomethyl)-s-triazine 144206-98-4 144207-00-1

144207-02-3 144207-04-5 144207-06-7 144207-08-9  
 144207-10-3 144207-12-5 144207-13-6 144230-77-3  
 144230-78-4 144230-80-8 144248-81-7

(photoinitiator, photopolymerizable composition containing)

L36 ANSWER 53 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1992:107009 HCAPLUS

DOCUMENT NUMBER: 116:107009

TITLE: Organic dye-based photopolymerization  
 initiators

INVENTOR(S): Ito, Hiromitsu; Taguchi, Takao; Imai, Yukiya;  
 Morimitsu, Yoshinori; Iino, Ryoichi

PATENT ASSIGNEE(S): Toppan Printing Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

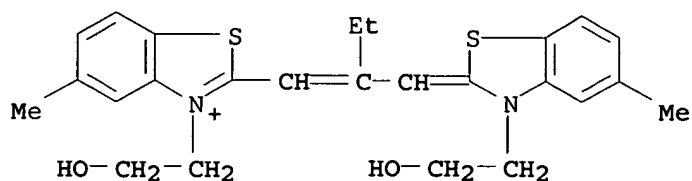
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	
JP 03109402	A2	19910509	JP 1989-247607	1989 0922
PRIORITY APPLN. INFO.: JP 1989-247607				1989 0922

AB The title initiators showing high sensitivity to UV, visible ray, and Ar laser contain compds. prepared by crosslinking organic peroxides and organic dyes having NH<sub>2</sub>, monoalkylamino, imino, CO<sub>2</sub>H, haloalkyl, or OH group using R<sub>1</sub>(CH<sub>2</sub>)<sub>n</sub>R<sub>2</sub> (R<sub>1</sub>-2 = NH<sub>2</sub>, monoalkylamino, CO<sub>2</sub>H, OH, haloalkyl; n = 1-5). Thus, a solution of 3,4'-dicarboxy-3',4-bis(tert-butylperoxycarbonyl)benzophenone in benzene was added dropwise to a solution of 1-hydroxypropionic acid and 4-piperidinopyridine in benzene and the mixture was treated with 7-amino-4-trifluoromethylcoumarin at room temperature for 5 h to give a photoinitiator (I). Then, an Al sheet was coated with a mixture of 2-ethylhexyl acrylate-methacrylic acid-Me methacrylate copolymer 100, pentaerythritol triacrylate 40, MEK 1100, and I 10 parts, dried at 70° for 2 min, overcoated with aqueous poly(vinyl alc.), and dried to give a test piece showing sensitivity to light (488 nm) of 0.3 mJ/cm<sup>2</sup>.

IT 23216-84-4DP, reaction products with peroxides and crosslinking agents  
 (preparation of, as visible light- and laser-sensitive photoinitiator)

RN 23216-84-4 HCAPLUS

CN Benzothiazolium, 3-(2-hydroxyethyl)-2-[2-[[3-(2-hydroxyethyl)-5-methyl-2(3H)-benzothiazolyliidene]methyl]-1-butenyl]-5-methyl-, bromide (9CI) (CA INDEX NAME)



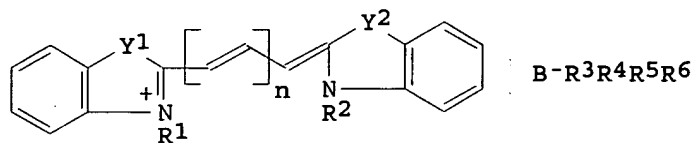
IC ICM C08F002-50  
ICS G03F007-031  
CC 35-3 (Chemistry of Synthetic High Polymers)  
Section cross-reference(s): 41  
ST dye deriv photopolymn initiator; peroxide dye photopolymn initiator; laser sensitive polymn initiator; visible light sensitive polymn initiator; acrylic polymer photocurable  
IT **Polymerization catalysts**  
(photochem., peroxides, dye-based, preparation of, with high sensitivity to visible light and laser)  
IT 50-21-5DP, reaction products with dyes and peroxides 56-41-7DP, L-Alanine, reaction products with dyes and peroxides 79-14-1DP, reaction products with dyes and peroxides 107-15-3DP, 1,2-Diaminoethane, reaction products with dyes and peroxides 107-21-1DP, 1,2-Ethanediol, reaction products with dyes and peroxides 110-94-1DP, Glutaric acid, reaction products with dyes and peroxides 760-78-1DP, DL-Norvaline, reaction products with dyes and peroxides 23216-84-4DP, reaction products with peroxides and crosslinking agents 53518-15-3DP, 7-Amino-4-trifluoromethylcoumarin, reaction products with peroxides and crosslinking agents 55804-70-1DP, reaction products with peroxides and crosslinking agents 70281-87-7DP, reaction products with peroxides and crosslinking agents 90164-26-4DP, reaction products with peroxides and crosslinking agents 93795-06-3DP, reaction products with dyes and crosslinking agents 103353-81-7DP, reaction products with dyes and crosslinking agents 139189-36-9DP, reaction products with dyes and crosslinking agents 139189-37-0DP, reaction products with peroxides and crosslinking agents 139189-41-6DP, reaction products with peroxides and crosslinking agents 139441-79-5DP, reaction products with peroxides and crosslinking agents (preparation of, as visible light- and laser-sensitive photoinitiator)

L36 ANSWER 54 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1991:91961 HCAPLUS  
DOCUMENT NUMBER: 114:91961  
TITLE: Photohardenable composition containing complex salt photoinitiator for imaging system  
INVENTOR(S): Gottschalk, Peter; Skaggs, Lisa M.  
PATENT ASSIGNEE(S): Mead Corp., USA  
SOURCE: Eur. Pat. Appl., 7 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 390439	A1	19901003	EP 1990-303141	1990 0323
R: CH, DE, FR, GB, LI JP 03020260	A2	19910129	JP 1990-78583	1990 0327
PRIORITY APPLN. INFO.:			US 1989-328669	A 1989 0327

OTHER SOURCE(S): MARPAT 114:91961  
GI



AB A photohardenable composition which is preferably microencapsulated and used in a panchromatic imaging system comprises a free-radical-polymerizable or crosslinkable monomer and a photoinitiator represented by the general formula I (Y1, Y2 = O, S, Se, vinyl, CMe2, or NR7; R1, R2 = alkyl; R3-6 = alkyl, aralkyl, alkaryl, alkenyl, alkynyl, alicyclic, allyl, or allyl; R7 = short-chain alkyl; n = 0-3). The photoinitiator I exhibits good solubility in common monomers and provides the photohardenable composition with improved photospeed.

IT 123051-21-8  
(photoinitiator, for photohardenable compns. for microencapsulated photoimaging materials)

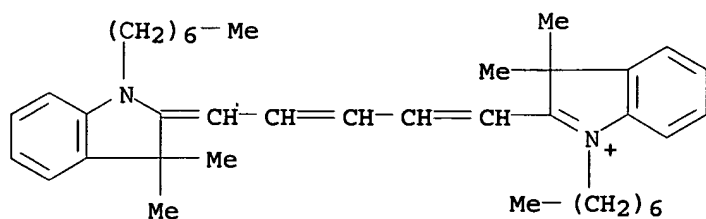
RN 123051-21-8 HCAPLUS

CN 3H-Indolium, 1-heptyl-2-[5-(1-heptyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 123022-20-8

CMF C39 H55 N2

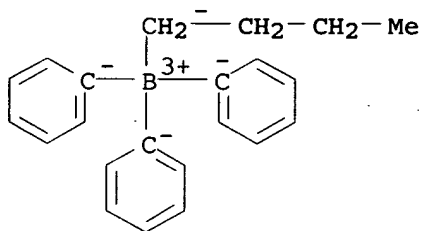


CM 2

CRN 47252-39-1

CMF C22 H24 B

CCI CCS



IC ICM C08F002-50

ICS G03C001-73; G03F007-029

CC 74-4 (Radiation Chemistry, Photochemistry, and  
Photographic and Other Reprographic Processes)

IT 123051-21-8 131898-27-6 132014-11-0

(photoinitiator, for photohardenable compns. for  
microencapsulated photoimaging materials)

L36 ANSWER 55 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1990:523869 HCAPLUS

DOCUMENT NUMBER: 113:123869

TITLE: Light-sensitive compositions

INVENTOR(S): Kawamura, Kouichi; Matsumoto, Hiroataka;  
Yamaguchi, Jun

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Ger. Offen., 35 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

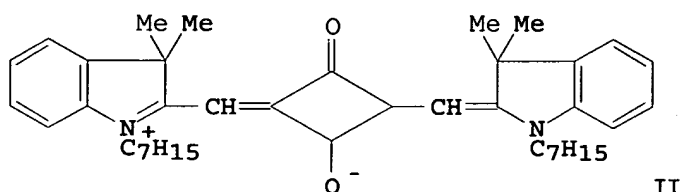
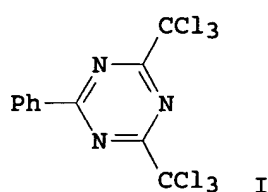
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 3926666	A1	19900215	DE 1989-3926666	1989 0811
DE 3926666	C2	19980604		
DE 3926666	C5	20050721		

JP 02048665 A2 19900219 JP 1988-200606

1988  
0811JP 08020734 B4 19960304  
US 4997745 A 19910305 US 1989-3943831989  
0811

PRIORITY APPLN. INFO.: JP 1988-200606

A

1988  
0811OTHER SOURCE(S): MARPAT 113:123869  
GI

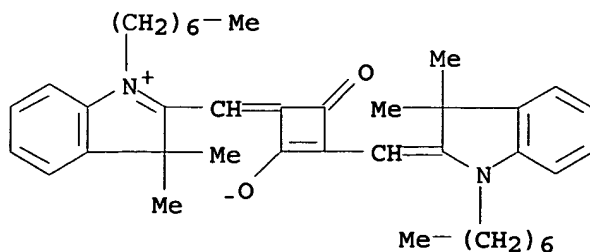
AB Light-sensitive **compns.** containing a trihalomethyl-s-triazine and a dye photosensitizer having a reduction potential that is not more than 0.10 V higher than the reduction potential of the trihalomethyl-s-triazine are used in photopolymerizable photoimaging **compns.** for the production of **lithog.** plates, printing plates, resist patterns, photomasks, or the like.. The **compns.** are sensitive in the visible and near-IR regions and are stable. Thus, a PET support was overcoated with a **composition** containing pentaerythritol tetraacrylate, a benzyl acrylate-methacrylic acid copolymer, I, II (photosensitizer), CH<sub>2</sub>Cl<sub>2</sub>, and MeCOEt, dried, imagewise exposed through a step tablet, and developed to show 6 steps.

IT 129300-92-1

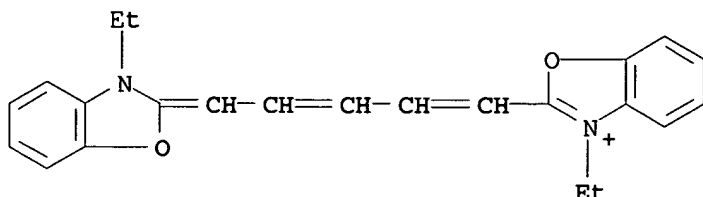
(photoinitiator **compns.** containing dye sensitizer and, for photopolymer photoimaging **compns.**)

RN 129300-92-1 HCAPLUS

CN 3H-Indolium, 1-heptyl-2-[[3-[(1-heptyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)methyl]-2-hydroxy-4-oxo-2-cyclobuten-1-ylidene)methyl]-3,3-dimethyl-, inner salt (9CI) (CA INDEX NAME)



IT 14806-50-9  
 (photoinitiator compns. containing trihalomethyltriazine and, for photopolymer photoimaging compns.)  
 RN 14806-50-9 HCAPLUS  
 CN Benzoxazolium, 3-ethyl-2-[5-(3-ethyl-2(3H)-benzoxazolylidene)-1,3-pentadienyl]-, iodide (9CI) (CA INDEX NAME)



● I<sup>-</sup>

IC ICM G03F007-004  
 ICS C08F002-50  
 ICA C09B023-00; C09B015-00; C09B057-02  
 CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST light sensitive compn photopolymer photoimaging; trihalomethyltriazine light sensitive compn photoimaging; dye light sensitive compn photoimaging; cyanine dye light sensitive photoimaging; triazine trihalomethyl light sensitive photoimaging  
 IT Lithographic plates  
 Photomasks  
 Printing plates  
 (photopolymerizable compns. for fabrication of, photoinitiator compns. for)  
 IT Resists  
 (photo-, photoinitiator compns. containing cyanine dye and trihalomethyltriazine compound for)  
 IT Photoimaging compositions and processes  
 (photopolymerizable, photoinitiator compns. containing cyanine dye and trihalomethyltriazine compound for)  
 IT 24504-22-1 125775-49-7 129300-92-1  
 (photoinitiator compns. containing dye sensitizer and, for photopolymer photoimaging compns .)  
 IT 905-96-4 985-10-4 14806-50-9 41387-42-2 61877-50-7 129281-02-3  
 (photoinitiator compns. containing trihalomethyltriazine and, for photopolymer photoimaging compns.)

L36 ANSWER 56 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1990:488252 HCAPLUS  
 DOCUMENT NUMBER: 113:88252  
 TITLE: Photopolymerization initiators and photosensitive materials containing them  
 INVENTOR(S): Fukui, Tetsuro; Miura, Kyo; Takasu, Yoshio

PATENT ASSIGNEE(S): Canon K. K., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02004804	A2	19900109	JP 1988-155696	

1988  
0622

PRIORITY APPLN. INFO.: JP 1988-155696

1988  
0622

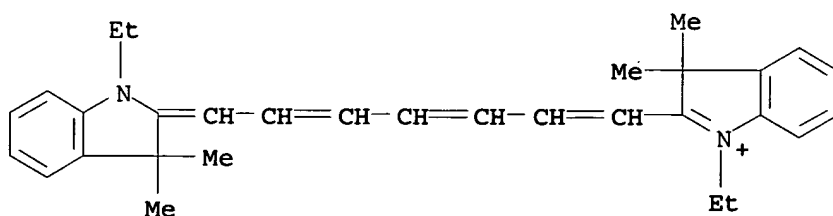
OTHER SOURCE(S): MARPAT 113:88252

AB Photosensitive materials comprise **radical-polymerizable** compds. and photopolymn. initiators containing cationic dye sensitizers and borate salts. The initiators show good sensitivity to semiconductor laser radiation and are useful for resists, printing plates, and the like. Thus, treating BuMgBr with Ph<sub>2</sub>BCl in THF and stirring the resulting solution with aqueous NaOH gave NaBBu<sub>2</sub>Ph<sub>2</sub>. Then, a solution containing pentaerythritol triacrylate, poly(Me methacrylate), NaBBu<sub>2</sub>Ph<sub>2</sub>, AcOEt, malachite green, and dichloroethane was applied on an anodically oxidized Al plate and exposed to a He-Ne laser to show high sensitivity.

IT 17094-17-6, NK 1414  
 (sensitizers, **photoinitiators** containing borate salts and, for photosensitive materials)

RN 17094-17-6 HCAPLUS

CN 3H-Indolium, 1-ethyl-2-[7-(1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-3,3-dimethyl-, iodide (9CI)  
 (CA INDEX NAME)



● I<sup>-</sup>

IC ICM C08F002-50

ICS G03F007-029; G03F007-20

CC 74-4 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)  
 Section cross-reference(s): 35

ST **polymn** initiator cationic dye sensitizer; borate salt  
**polymn** initiator; photosensitive material borate  
**polymn** initiator; laser sensitive **polymn**

initiator borate; photoresist cationic dye borate salt; printing plate photosensitive material

IT **Polymerization** catalysts  
(photochem., cationic dyes and borate salts as, for laser-sensitive materials)

IT 81-88-9 569-64-2, Malachite green 2390-59-2, Ethyl violet  
17094-17-6, NK 1414 107893-51-6 124896-12-4  
128034-96-8 128603-76-9 128840-18-6  
(sensitizers, **photoinitiators** containing borate salts and, for photosensitive materials)

L36 ANSWER 57 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1990:88310 HCAPLUS

DOCUMENT NUMBER: 112:88310

TITLE: Dye-sensitized photographic imaging system

INVENTOR(S): Farid, Samir Y.; Moody, Roger E.

PATENT ASSIGNEE(S): Eastman Kodak Co., USA

SOURCE: U.S., 15 pp.  
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 4859572	A	19890822	US 1988-189002	1988 0502
CA 1335699	A1	19950530	CA 1989-596709	1989 0414
EP 340652	A2	19891108	EP 1989-107728	1989 0428
EP 340652	A3	19910502		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 02013954	A2	19900118	JP 1989-112301	1989 0502
PRIORITY APPLN. INFO.:			US 1988-189002	A 1988 0502

OTHER SOURCE(S): MARPAT 112:88310

AB A photog. imaging system is described comprising a hardenable organic component containing ethylenic unsatn. sites and an initiator system for ethylenic addition The initiator system is comprised of an electron acceptor activator, an electron donor activator containing a borate anionic moiety, and, acting as a photosensitizer, a dye capable of absorbing imaging radiation. The dye has a reduction potential related to that of the electron acceptor activator and an oxidation potential related to that of the electron donor activator to permit each to release a free radical upon excitation of the photosensitizer by exposure to actinic radiation.

IT 125318-62-9  
(**photoinitiator** system containing, for photoimaging process)

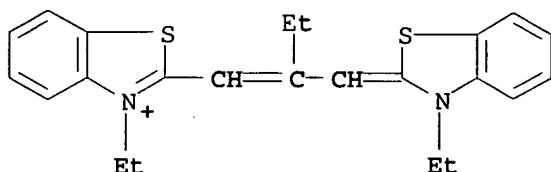
RN 125318-62-9 HCAPLUS

CN Benzothiazolium, 3-ethyl-2-[2-[(3-ethyl-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 35077-88-4

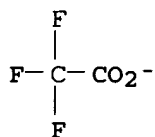
CMF C23 H25 N2 S2



CM 2

CRN 14477-72-6

CMF C2 F3 O2



IC ICM G03C001-68

INCL 430281000

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Polymerization catalysts

(photochem., containing electron acceptor and electron donor and sensitizing dye in photoimaging systems)

IT 63123-42-2 120307-06-4 125318-62-9 125318-63-0

(photoinitiator system containing, for photoimaging process)

L36 ANSWER 58 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1990:28150 HCAPLUS

DOCUMENT NUMBER: 112:28150

TITLE: Infrared-sensitive photopolymerization compositions for colored photoresists and photoimaging

INVENTOR(S): Yamaguchi, Jun; Shinozaki, Fumiaki; Ishige, Sadao; Adachi, Keiichi; Okazaki, Masaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

JP 01072150

A2

19890317

JP 1987-228032

1987  
0911

PRIORITY APPLN. INFO.:

JP 1987-228032

1987  
0911

AB The title compns. comprise ethylenically unsatd. bond-containing **polymerizable** compound, organic cationic colored compound organic B compound anion salt R1R2R3R4B- D+ (D+ = cationic dye; R1-4 = (un)substituted alkyl, aryl, aralkyl, alkaryl, alkenyl, alkynyl, alicyclic, heterocyclic, or allyl group or  $\geq 2$  of R1-4 may be ring member sensitive to light of  $>750$  nm wavelength and a dye or pigment sensitive to light of  $\leq 700$  nm wavelength.

IT 123809-91-6

(photoinitiators, for IR-sensitive colored photoresists and photoimaging compns.)

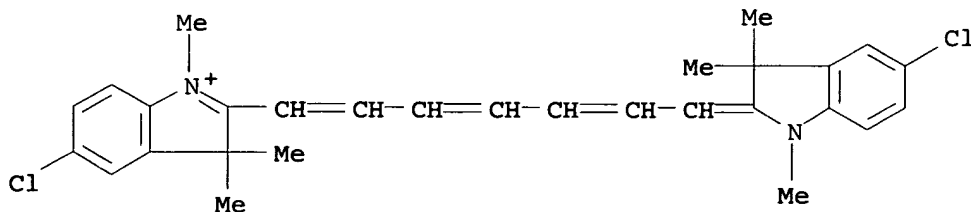
RN 123809-91-6 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[7-(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 95415-19-3

CMF C29 H31 Cl2 N2

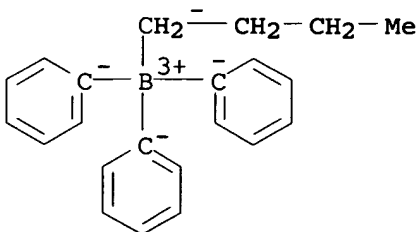


CM 2

CRN 47252-39-1

CMF C22 H24 B

CCI CCS



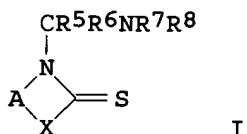
IC ICM G03C001-68

ICS G03C001-00  
 ICA C08F002-50; G03C005-16  
 CC 74-5 (Radiation Chemistry, Photochemistry, and  
**Photographic** and Other Reprographic Processes)  
 Section cross-reference(s): 35  
 IT 123809-91-6  
 (photoinitiators, for IR-sensitive colored  
 photoresists and photoimaging compns.)

L36 ANSWER 59 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1989:564270 HCAPLUS  
 DOCUMENT NUMBER: 111:164270  
 TITLE: High-sensitivity, spectrally sensitized  
 photopolymerizable **compositions**  
 INVENTOR(S): Yamaguchi, Jun; Washisu, Shintaro  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 01017048	A2	19890120	JP 1987-172435	1987 0710
PRIORITY APPLN. INFO.:			JP 1987-172435	1987 0710

GI



AB The title **compns.** useful in laser-sensitive  
 lithog. plates, photoresists, photomask, and image-forming  
 microcapsules comprise ethylenically unsatd. **polymerizable**  
 compds., organic cationic color compds. in the form of organoboron  
 anion salt R<sup>1</sup>R<sup>2</sup>R<sup>3</sup>R<sup>4</sup>B-- D<sup>+</sup> and cis group-containing compds. I (D =  
 cationic color compound; R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup> = alkyl, aryl, aralkyl,  
 alkaryl, alkenyl, alkynyl, alicyclic, heterocyclic, allyl, or  
 their derivative group; ≥2 of R<sup>1</sup>-4 may be bonded together to  
 form a ring; X = NR, O, S, C; R = H, C<sub>1</sub>-4 alkyl; A = member of  
 mono- or polynuclear rings; R<sup>5</sup>, R<sup>6</sup> = H, alkyl, aryl; R<sup>7</sup>, R<sup>8</sup> = H,  
 alkyl, alkyl, aralkyl, or may form pyridine, piperidine,  
 morpholine, or n-substituted piperazine ring with the N.

IT 121431-64-9 123051-21-8  
 (photoinitiators, for photoimaging **compns.**,  
 sensitizers for)

RN 121431-64-9 HCAPLUS

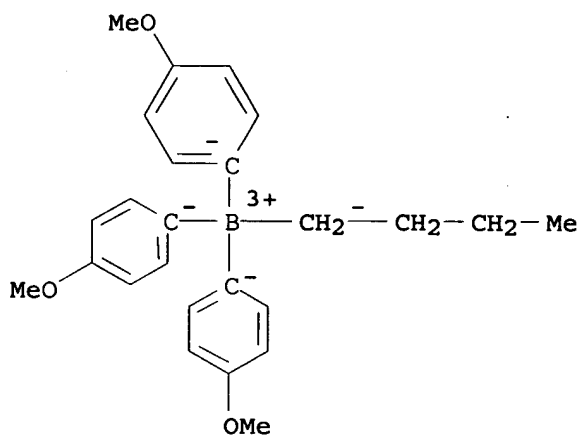
CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, (T-4)-butyltris(4-methoxyphenyl)borate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 121431-62-7

CMF C25 H30 B O3

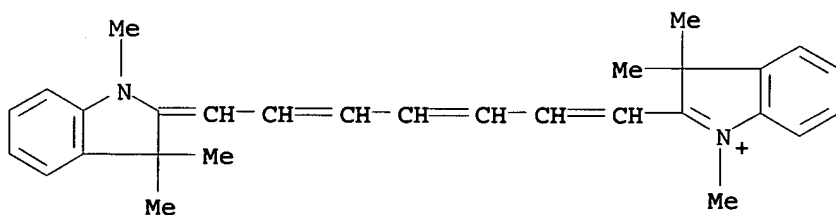
CCI CCS



CM 2

CRN 47676-39-1

CMF C29 H33 N2



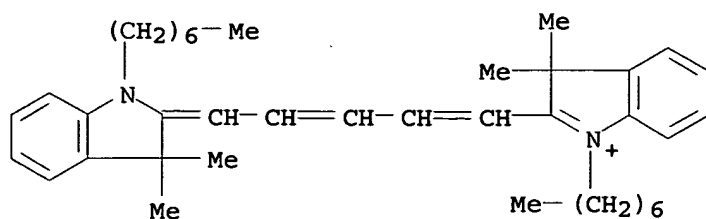
RN 123051-21-8 HCAPLUS

CN 3H-Indolium, 1-heptyl-2-[5-(1-heptyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 123022-20-8

CMF C39 H55 N2

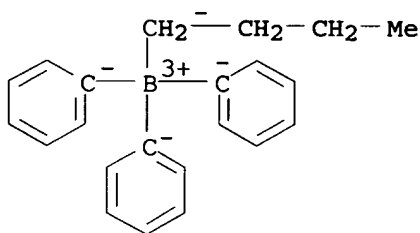


CM 2

CRN 47252-39-1

CMF C22 H24 B

CCI CCS



- IC ICM G03C001-68  
ICS C08K005-43; C08K005-55; C09D011-10; G03C001-00; G03C005-16
- CC 74-6 (Radiation Chemistry, Photochemistry, and  
Photographic and Other Reprographic Processes)
- ST photopolymerizable compn lithog plate;  
spectrally sensitized photoresist; photomask spectrally  
sensitized; photoimaging compn spectrally sensitized;  
laser sensitive polymerizable compn
- IT Lithographic plates  
(manufacture of, photoinitiators and sensitizers in)
- IT Photoimaging compositions and processes  
(polymeric, photoinitiators and sensitizers  
for)
- IT Resists  
(photo-, photoinitiators and sensitizers for)
- IT Polymerization catalysts  
(photochem., cyanine borates, for acrylic compds., for  
photoimaging compns.)
- IT 4986-89-4, Pentaerythritol tetraacrylate 65697-21-4,  
Benzylmethacrylate-methacrylic acid copolymer  
(photoimaging compns. containing, for initiators and  
sensitizers for)
- IT 117522-03-9 121431-64-9 123051-21-8  
(photoinitiators, for photoimaging compns.,  
sensitizers for)
- IT 2160-15-8 6957-11-5  
(sensitizers, for photoimaging compns.)

L36 ANSWER 60 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1985:140898 HCAPLUS

DOCUMENT NUMBER: 102:140898  
 TITLE: Perester compounds  
 INVENTOR(S): Wade, John Robert; Potts, Rodney Martin;  
 Pratt, Michael John  
 PATENT ASSIGNEE(S): Vickers PLC, UK  
 SOURCE: Eur. Pat. Appl., 49 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
EP 125875	A2	19841121	EP 1984-303110	1984 0509
EP 125875	A3	19850130		
EP 125875	B1	19880810		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
FI 8401825	A	19841110	FI 1984-1825	1984 0507
DK 8402276	A	19841110	DK 1984-2276	1984 0508
ZA 8403469	A	19841224	ZA 1984-3469	1984 0508
ZA 8403468	A	19851030	ZA 1984-3468	1984 0508
CA 1252782	A1	19890418	CA 1984-453805	1984 0508
NO 8401870	A	19841112	NO 1984-1870	1984 0509
NO 169227	B	19920217		
NO 169227	C	19920527		
AU 8427837	A1	19841115	AU 1984-27837	1984 0509
AU 574361	B2	19880707		
ES 532352	A1	19860601	ES 1984-532352	1984 0509
AT 36317	E	19880815	AT 1984-303110	1984 0509
US 4946960	A	19900807	US 1987-107889	1987 1009
US 5130227	A	19920714	US 1989-418758	1989 1005
US 5286603	A	19940215	US 1992-894002	1992 0603

## PRIORITY APPLN. INFO.:

GB 1983-12721	A	1983 0509
GB 1983-12722	A	1983 0509
US 1984-607774	B1	1984 0507
US 1984-607776	B1	1984 0507
EP 1984-303110	A	1984 0509
US 1985-814523	B1	1985 1219
US 1986-902046	B1	1986 0826
US 1986-946674	B1	1986 1231
US 1988-191831	B1	1988 0509
US 1989-418758	A3	1989 1005

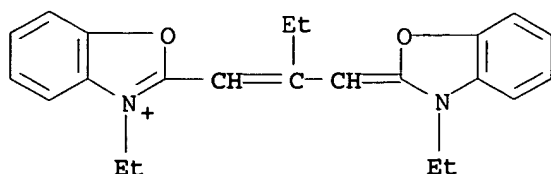
AB A photopolymeric **composition** suitable for **lithog.** plate fabrication contains a perester compound suitable to cause **polymerization** of an addition **polymerizable** compound on exposure to radiation. Thus, an Al support was coated with a **composition** containing the dimethacrylate ester of the diglycidyl ether of Bisphenol A 3, vinyl acetate-crotonic acid copolymer 1, 4-(2',4',6'-trimethylbenzoyl)-tert-Bu perbenzoate 0.15, and Et Michler's ketone 0.15 weight parts, dried, overcoated with poly(vinyl alc.), imagewise exposed, and developed with an aqueous solution containing Na propanoate, Na benzoate, and a surfactant to give a **lithog.** plate.

IT 1054-00-8

(photopolymer **composition** for **lithog.** plate fabrication containing, perester **photoinitiators** for)

RN 1054-00-8 HCAPLUS

CN Benzoxazolium, 3-ethyl-2-[2-[(3-ethyl-2(3H)-benzoxazolylidene)methyl]-1-butenyl]-, iodide (9CI) (CA INDEX NAME)



● I<sup>-</sup>

IC C07C179-18; C07C179-20; C07D277-64; C07D277-84; C07D335-16;  
C07D209-22; C07D293-12; C07D215-14; C07D417-06; C07D455-04  
ICA G03C001-68  
CC 74-5 (Radiation Chemistry, Photochemistry, and  
Photographic and Other Reprographic Processes)  
ST lithog plate photopolymer compn perester;  
photoinitiator perester photopolymer lithog  
plate  
IT Lithographic plates  
(photopolymer composition for preparation of, perester  
photoinitiators for)  
IT Photoimaging compositions and processes  
(photopolymer, perester photoinitiators for)  
IT Polymerization catalysts  
(photochem., perester compds. as)  
IT 89836-56-6 94610-26-1 94610-27-2 94610-28-3 94610-29-4  
94610-30-7 94610-32-9 94610-33-0 94610-34-1 94610-35-2  
94610-36-3 94610-37-4 94610-38-5 94610-39-6 94610-40-9  
94610-41-0 94610-42-1 94610-43-2 94610-44-3 94610-45-4  
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94610-51-2 94610-52-3 94610-53-4 94610-54-5 94610-55-6  
94610-56-7 94610-57-8 94610-58-9 94610-59-0 94610-60-3  
94610-61-4 94610-62-5 94610-63-6 94610-70-5 94610-71-6  
94610-72-7 94610-73-8 94610-74-9 94630-61-2 94630-62-3  
94630-63-4 94630-64-5 94630-65-6 94630-66-7 94630-67-8  
94630-68-9 94630-69-0 94630-70-3 94630-71-4 94630-72-5  
94630-73-6 94630-74-7 94630-75-8 94630-76-9 94630-77-0  
94630-78-1 94630-79-2 94630-80-5 94630-81-6 94630-82-7  
94630-83-8 94630-84-9 94630-85-0 94630-86-1 94630-87-2  
94630-88-3 94630-89-4 94630-90-7 94630-91-8 94630-92-9  
94630-93-0 94630-94-1 94630-95-2 94630-96-3 94630-97-4  
94630-98-5 94630-99-6 95205-05-3 95205-06-4 95205-07-5  
95205-08-6 95205-09-7 95205-10-0 95205-11-1  
(photopolymer composition for lithog. plate  
fabrication containing, as initiator)  
IT 90-93-7 91-44-1 905-96-4 1042-84-8 1054-00-8  
1565-94-2 5950-99-2 14934-37-3 25609-89-6 63226-13-1  
71616-78-9 79586-49-5 80601-02-1 84170-75-2 95205-12-2  
(photopolymer composition for lithog. plate  
fabrication containing, perester photoinitiators for)  
L36 ANSWER 61 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1985:70278 HCAPLUS  
DOCUMENT NUMBER: 102:70278  
TITLE: Radiation sensitive plates  
INVENTOR(S): Wade, John Robert; Potts, Rodney Martin;  
Pratt, Michael John

PATENT ASSIGNEE(S): Vickers PLC, UK  
 SOURCE: Eur. Pat. Appl., 49 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 125140	A2	19841114	EP 1984-303111	1984 0509
EP 125140	A3	19850306		
EP 125140	B1	19881214		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
FI 8401826	A	19841110	FI 1984-1826	1984 0507
FI 81916	B	19900831		
FI 81916	C	19901210		
DK 8402277	A	19841110	DK 1984-2277	1984 0508
DK 162468	B	19911028		
DK 162468	C	19920323		
CA 1259219	A1	19890912	CA 1984-453804	1984 0508
NO 8401869	A	19841112	NO 1984-1869	1984 0509
NO 169313	B	19920224		
NO 169313	C	19920603		
AU 8427838	A1	19841115	AU 1984-27838	1984 0509
AU 581406	B2	19890223		
ES 532351	A1	19860616	ES 1984-532351	1984 0509
AT 39295	E	19881215	AT 1984-303111	1984 0509
US 4946960	A	19900807	US 1987-107889	1987 1009
US 5130227	A	19920714	US 1989-418758	1989 1005
US 5286603	A	19940215	US 1992-894002	1992 0603
PRIORITY APPLN. INFO.:			GB 1983-12721	A 1983 0509
			GB 1983-12722	A 1983

0509

US 1984-607774 B1  
1984  
0507

US 1984-607776 B1  
1984  
0507

EP 1984-303111 A  
1984  
0509

US 1985-814523 B1  
1985  
1219

US 1986-902046 B1  
1986  
0826

US 1986-946674 B1  
1986  
1231

US 1988-191831 B1  
1988  
0509

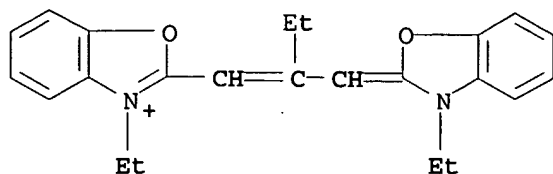
US 1989-418758 A3  
1989  
1005

AB A photosensitive **composition** for lithog. plate fabrication contains an ethylenically unsatd. **polymerizable** compound, a perester **photoinitiator** and optionally an optical sensitizer. Thus, a grained and anodized Al plate was coated with a **composition** containing dimethacrylate ester of diglycidyl ether of bisphenol A 3, vinyl acetate-crotonic acid polymer 1, 4-(1'-methoxybenzoyl)-tert-Bu perbenzoate 0.15, Et Michler's Ketone 0.15 weight part in EtCOMe at a coating weight 1 g/m<sup>2</sup>, dried, overcoated with a poly(vinyl alc.), imagewise exposed, and developed with an aqueous solution containing Na propanoate, Na benzoate and a surfactant to give a lithog . plate.

IT 1054-00-8  
(photopolymeric imaging **composition** for lithog. plates fabrication containing, perester **photoinitiators** for)

RN 1054-00-8 HCAPLUS

CN Benzoxazolium, 3-ethyl-2-[2-[(3-ethyl-2(3H)-benzoxazolylidene)methyl]-1-butenyl]-, iodide (9CI) (CA INDEX NAME)



● I-

IC G03C001-68; G03F007-10; G03C001-94; C07C179-18; C07C179-20;  
C07C179-22; C08L033-08; C08L033-10; C08F002-50  
CC 74-6 (Radiation Chemistry, Photochemistry, and  
Photographic and Other Reprographic Processes)  
ST photopolymer compn perester photoinitiator  
lithog  
IT Lithographic plates  
(photopolymeric imaging composition for preparation of, containing  
perester photoinitiator)  
IT 71616-77-8 71616-78-9 71616-79-0 89836-56-6 94610-26-1  
94610-27-2 94610-28-3 94610-29-4 94610-30-7 94610-31-8  
94610-32-9 94610-33-0 94610-34-1 94610-35-2 94610-36-3  
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94610-62-5 94610-63-6 94610-64-7 94610-65-8 94610-66-9  
94610-67-0 94610-68-1 94610-69-2 94610-70-5 94610-71-6  
94610-72-7 94610-73-8 94610-74-9 94630-61-2 94630-62-3  
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94630-93-0 94630-94-1 94630-95-2 94630-96-3 94630-97-4  
94630-98-5 94630-99-6 94654-03-2  
(photopolymeric imaging composition for lithog.  
plates fabrication containing)  
IT 90-93-7 91-44-1 905-96-4 1042-84-8 1054-00-8  
1565-94-2 14934-37-3 25609-89-6 28705-46-6 31897-47-9  
63226-13-1 79586-49-5 80601-02-1 84170-75-2  
(photopolymeric imaging composition for lithog.  
plates fabrication containing, perester photoinitiators  
for)

L36 ANSWER 62 OF 62 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1983:81538 HCAPLUS  
DOCUMENT NUMBER: 98:81538  
TITLE: Visible light sensitive, thermally developable  
imaging systems  
INVENTOR(S): Smith, George H.; Olofson, Peter M.  
PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co., USA  
SOURCE: Eur. Pat. Appl., 23 pp.  
CODEN: EPXXDW

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
EP 61898	A1	19821006	EP 1982-301575	1982 0325
EP 61898	B1	19850619		
R: AT, CH, DE, FR, GB, IT, NL, SE				
US 4386154	A	19830531	US 1981-247834	1981 0326
CA 1174887	A1	19840925	CA 1982-397891	1982 0309
BR 8201701	A	19830216	BR 1982-1701	1982 0325
AT 13951	E	19850715	AT 1982-301575	1982 0325
US 4460677	A	19840717	US 1982-439848	1982 1108
PRIORITY APPLN. INFO.:			US 1981-247834	A 1981 0326
			EP 1982-301575	A 1982 0325

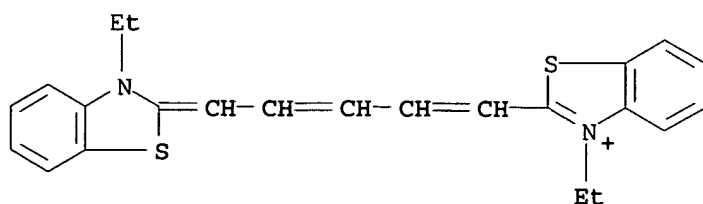
AB A photothermog. imaging composition comprises a **polymeric** binder, a leuco dye, a nitrate ion, a sensitizing dye and a photoinitiator selected from a class consisting of diaryliodonium salts or photolyzable organic halogen compds. Thus, a poly(ethylene terephthalate) support was coated with a composition containing acrylonitrile-vinylidene chloride copolymer 1.5, MeCOEt 3.5, benzoyl leuco methylene blue 0.09, Mg(NO<sub>3</sub>)<sub>2</sub>·6H<sub>2</sub>O 0.026, trimesic acid 0.004, ascorbic acid 0.004, MeOH 0.9, diphenyliodonium nitrate 0.08, and 5,10-diethoxy-16,17-dimethoxyviolanthrene 0.002 g, dried at 60° for 7 min, imagewise exposed to a 75W W lamp at a distance of 12.7 cm, and developed at 85° for .apprx.20 s to give a dense blue color image with optical d. >1.2.

IT 514-73-8

(photothermog. imaging composition containing leuco dye and nitrate ion and **photoinitiator** and)

RN 514-73-8 HCAPLUS

CN Benzothiazolium, 3-ethyl-2-[5-(3-ethyl-2(3H)-benzothiazolylydene)-1,3-pentadienyl]-, iodide (9CI) (CA INDEX NAME)



●  $\text{I}^-$

IC G03C001-727

CC 74-7 (Radiation Chemistry, Photochemistry, and  
Photographic and Other Reprographic Processes)

IT 50-81-7, uses and miscellaneous 65-61-2 514-73-8  
554-95-0 50721-70-5

(photothermog. imaging composition containing leuco dye and nitrate ion  
and photoinitiator and)